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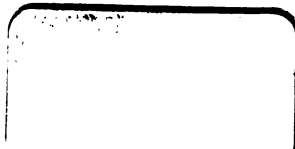


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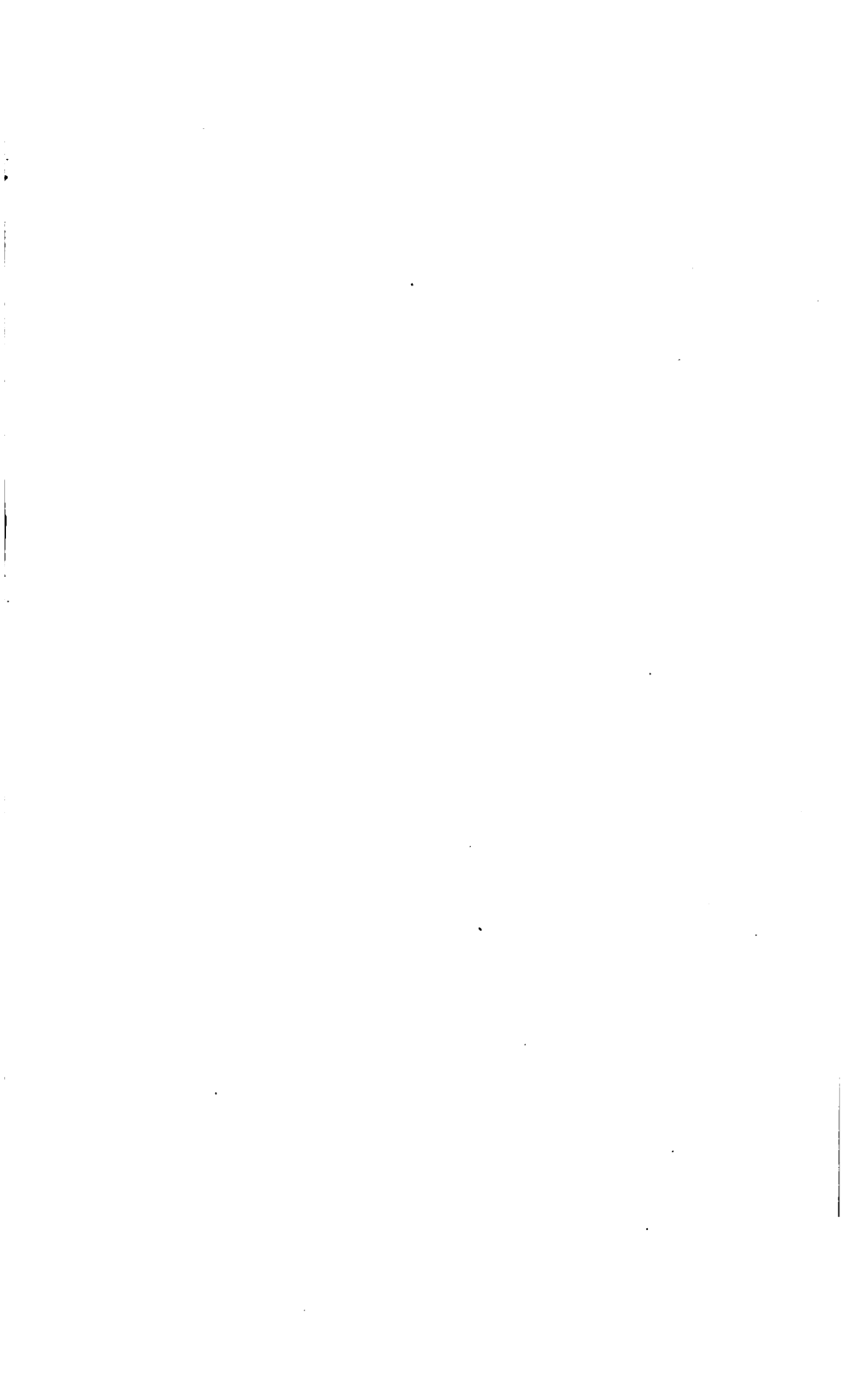
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VOL. XXV.



# ARCHAEOLOGIA AELIANA:

OR

*Miscellaneous Tracts*

RELATING TO ANTIQUITIES.

PUBLISHED BY THE

SOCIETY OF ANTIQUARIES OF NEWCASTLE UPON TYNE.

VOLUME XXV.



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- Stone, Sir Benjamin, for photographs of Whalton bonfire, facing pp. 181 and 182.
- Thompson and Lee, for photographs facing p. 148.
- Webb, Charles, for photograph of Tyne Slab, p. 140.
-

## ADDITIONS AND CORRECTIONS.

- Page xxxix, line 20, for 'sacrophagus' read 'sarcophagus.'  
 „ 8, line 13, for 'Bologne' read 'Bologna.'  
 „ 118, second line from top, for 'monastic remains' read 'monastic monumental remains.'  
 „ 122, tenth line from top, for '(see plate vi)' read '(as in fig. 2).'  
 „ 145, for 'Brough, Derbyshire,' under illustration, read 'Netherby.'  
 „ 192, line 7 of deed, for 'sive' read 'suis,' and 13, for 'sius' read 'suis'; and lines 15, 17 and 19 for 'inp'p'um' read 'imp'p'um,' and line 23 for 'apposuit' read 'apposui.'  
 „ 196, lines 1, 6, and 24, for 'Anonymous' read '*anonymus*.'  
 „ 219, line 13, for 'Caracalla,' read 'Elagabalus.'  
 „ 255, in the Peel Park museum, Salford, is a carved bas-relief representing a Mithraic figure found at Hulme. See also illustration, p. iv, of a fine Mithraic slab discovered in Germany (see report of the 'Obergermanisch-Raetische Limes Kommission').

The walls on plate XIX., are indicated in the same way as on plate X., where a key is given:—Solid black denotes early work; hatching, later work; cross-hatching, traces of foundations; and dotted lines, inferred line of wall.



ROMAN INSCRIPTION TO ANTENOCITIVS FROM BENWELL.

REPORT  
OF  
**The Society of Antiquaries**  
OF  
**NEWCASTLE-UPON-TYNE.**

---

ANNUAL MEETING, MDCCCIII.

---

OUR society commemorates to-day its ninetieth anniversary and in the year that is past we look back upon a period memorable in our national history. The alternations of light and shadow in our annals have seldom followed each other in more rapid succession. The celebration of peace, the suspense during the illness of the king, and his majesty's happy recovery were the immediate precursors of the great event of the year, the coronation on the ninth of August of our most gracious sovereign king Edward VII.

A period of absorption in public events may well have monopolised attention. But, be this as it may, the work accomplished by many public institutions appears to have suffered diminution and to have attracted a lessened interest in comparison with that of former years, and our own society is probably no exception to the general experience.

Perhaps the uppermost feeling in our minds at this moment recalls the personality of the chairman who presided over our last annual meeting. The speech with which he concluded the business of that day was a characteristic utterance; but we have now to look back upon its frank and genial periods with all the poignancy that marks the recollection of a valedictory address. They were the last words uttered in our midst by our late vice-president, Mr. Cadwallader John Bates; for on the twentieth of March, his untimely death overshadowed the year. It has been said that as



an antiquary his loss is an incalculable one. It may well be added that as a friend his loss is irreparable. We are yet too near to realize the full extent of our deprivation, for it may be said that from first to last his enthusiastic interest pervaded every department of our society's work. Mr. Bates was elected a member in 1882. In 1891 he contributed to our transactions the first part of his 'Border Holds of Northumberland,' a work of xxiv—465 pages, forming an entire volume (xiv.) of *Archaeologia Aeliana*. By his premature death this important publication has been left unfinished; but, incomplete though it be, it will remain a standing memorial of the ability and thoroughness with which his investigations were characterized. A bibliography of the writings of Mr. Bates has been compiled by our colleague, Mr. J. Crawford Hodgson. This will appear in the forthcoming part of *Archaeologia Aeliana* appended to an obituary notice by Dr. Hodgkin. At the suggestion of Mr. J. C. Hodgson your council has lent its sanction to the publication, by subscription, of a memorial volume to consist of a selection of letters on archaeological subjects written by Mr. Bates, and the editorship of these has been generously undertaken by the rev. M. Culley. In his hands we may feel confident that the task will prove a labour of love.

More recently we have to deplore the death of Mr. William Searle Hicks, who was elected to our membership in 1883. As an ecclesiastical architect Mr. Hicks was widely known and highly regarded in his profession, and his services as a specialist in medieval art and as an ecclesiologist have been on many occasions rendered to our society. Ever unobtrusively, but always generously given, these services have been at all times greatly appreciated; so that in the twenty years of his membership we have learned to realize the estimable character of one whose gracious nature and retiring disposition added dignity to his professional accomplishments and whose premature death leaves so grievous a blank.

We have also to record the death of our aged colleague, Mr. John Ventress. A paper on the bells of St. Nicholas's church, Newcastle, was contributed by him to the second volume of the new series of *Archaeologia Aeliana*, and from that time till the year of his death detached notes on old features of the city appeared from him in our

*Proceedings.* The model of the castle, now in the Black Gate museum, was entirely his own handiwork. Its execution represents a work of years, its plan being taken as far as possible from data obtained in actual excavations. Whilst, however, much of its elevation is conjectural, and the wall circuit of the inner bailey is largely on traditional lines, the model itself forms an invaluable plan of the whole enclosure and an accurate key to the sites of the subsidiary structures. Mr. Ventress originally joined our society in 1856, and, after an intermission of some years, became a regular attender at our meetings until within a short time before his death at the advanced age of 84. He had been well acquainted with many of the early members of our society and his presence was an interesting link between the present and the past.

In addition to our ordinary monthly meetings in the castle, six country meetings have been held during the year.

On June the fifth, members assembled at Rothbury, under the guidance of their colleague, Mr. D. D. Dixon, when Brinkburn priory, Whitton tower, Cragside and Rothbury church were visited in succession. A series of valuable historical notes was read by Mr. Dixon at the several halts by the way, rendering the visit to each object one of special interest.

On Friday, August the first, a country meeting was held at Morpeth, Bothal and Cockle Park. Mr. Knowles described the archaeological features of Morpeth church and Cockle Park tower, and the intimate local knowledge of our valued colleague, the rev. John Walker, and that of the hon. and rev. W. Ellis, contributed greatly to the success of the meeting. At Morpeth, our party was received by the mayor, Mr. Young, who kindly exhibited the council chamber and the historic treasures of the borough. At Cockle Park tower, the experimental farm of the Northumberland County Council was shewn by county alderman T. Carrick, who also received the members in the tower. At Bothal, members were welcomed by the rector, the hon. and rev. W. Ellis, who shewed them his grounds of Bothalhaugh and accompanied them in an inspection of the church and castle, both of which he described.

An afternoon meeting was held at Tynemouth on August the second, when our vice-president, Mr. H. A. Adamson, received the

members, describing the monastic history and remains of the priory, and conducting them, by permission of major Chamberlain, R.A., through the governor's house, about to be demolished.\*

The fifth country meeting was held on Monday, September the first, at Barnard Castle, members proceeding thence by Egliston abbey and Greta Bridge to Rokeby.

A second afternoon meeting was held on October the fourth at Corbridge, where the party was conducted by the junior secretary. The church and pele were examined and described, and the way was then taken by the bridle path to Aydon castle, on the road to which the remaining field strips were examined with interest.

The mid-summer meeting, extending over two days, was held on the line of the Antonine Wall on July the first and second, Falkirk being adopted as a centre. Arrangements for the visit were carried out in the most complete manner by Mr. J. R. MacLuckie, F.S.A. (Scot.), and under his guidance the party successively visited Falkirk church, Callendar house and South Bantaskine on the first day, and the Roman camp at Camelon, the broch of Tappock, Torwoodhead castle, Dunipace house, the excavations at the stationary camp near Castlecary, the castle there, and the line of the turf Wall on the return by Rough Castle to Falkirk on the second day. Tappock broch and Torwood and Castlecary castles were described by Mr. Thomas Ross, F.S.A. (Scot.), and the camps at Castlecary and Rough Castle were severally described by Mr. Cunningham, C.E., secretary of the Society of Antiquaries of Scotland, and by Mr. Mungo Buchanan, other places of interest being described by Mr. MacLuckie himself. The inadequate accommodation obtainable in the Falkirk hotels was supplemented by the private entertainment provided for a considerable number of our members. This generous hospitality was equalled by the devotion displayed by the Scottish antiquaries on every hand, and with this happy combination the meeting was felt to be altogether successful. The unanimous feeling of all present found utterance in a suggestion that it would be a courteous return were we to extend an invitation to our Scottish hosts, many of whom expressed a strong desire to visit the line of the southern Wall. Your council would gladly accede to the proposition, and in so doing suggest that a country meeting be

\* Since the meeting the building has been razed to the ground.

held in the summer of the present year on the Roman Wall in Northumberland, and that our conductors at Falkirk, with their friends, be invited to join with us. Such a conference, duly arranged, would not only prove a friendly visit, but afford opportunity for an exchange of observations on the respective lines of investigation.

During the year the fifty-eighth part of *Archaeologia Aeliana*, consisting of two hundred and nine pages of letterpress, has been issued. It contains the first instalment of the report on the excavations conducted by the Roman Wall Excavation Committee, to which our vice-president, Dr. Hodgkin, contributes an introduction. Mr. J. P. Gibson describes his discovery of a hitherto unknown wall-turret on Mucklebank, following this by a circumstantial account of the excavations conducted at AESICA in the years 1894, 5 and 7. Plates, from Mr. Gibson's own photographs, and a plan from the late Mr. Sheriton Holmes's survey, enhance the interest of the important details and discoveries described by Mr. Gibson. The part also contains an account by Mr. J. P. Pritchett of recent discoveries in the chapel of Raby castle, illustrated by a complete series of plans, sections and elevations of the windows, doors, sedilia, and other features now brought to light. In another paper our vice-president, Mr. R. Coltman Clephan, F.S.A., furnishes a treatise on military engines of the Roman and medieval periods, detailing and illustrating his subject with the pains and care of a specialist. The remainder of the part consists of four contributions to material for local history. In one of these Mr. J. Crawford Hodgson has edited Miss Martin's digest of the Brumell collection of charters, deposited with our society. In a brief paper Mr. T. M. Fallow, F.S.A., has made an abstract of deeds relating to Chester-le-Street. Mr. J. Crawford Hodgson also continues the series of 'Proofs of Age' in two more abstracts, and our vice-president, Mr. Richard Welford, adds fifty closely printed pages as a second instalment of local muniments. It is hardly possible to exaggerate the importance of contributions of this character, and it may be safely said that they will render the pages of *Archaeologia Aeliana* a storehouse of information to the topographer and to the genealogist in time to come.

Besides the *Archaeologia Aeliana*, the *Proceedings* of the society, issued to members during the past year, occupy one hundred and sixty-four pages of the tenth volume of the series, which are profusely illustrated. When complete the volume will be not only a digest of the society's proceedings, but it will even excel its predecessors as a *repertoire* of notes and documents, the fruit of assiduous care and pains on the part of our editorial secretary. To these notes the rev. canon Baily has added further extracts from Ryton church briefs.

His grace the duke of Northumberland, president of our society, has carried out important excavations at the gatehouse of Alnwick castle during the past year. These have disclosed the masonry and abutments about the moat and draw-bridge, including the chamber from which the latter was worked. The method adopted for raising and lowering the draw-bridge is rendered apparent by this discovery and is seen to be one of peculiar arrangement. In its exceptional character it is possibly the first of its kind yet found in England. Our colleague, Mr. W. H. Knowles, F.S.A., who directed the excavations, has promised to read a paper to the society on the subject.

The demolition of house property in Newcastle for the purpose of clearing sites for new buildings has been one of the incidents of the past year. So rapidly and extensively has this been carried out that the appearance of some old thoroughfares has already suffered transformation. Strange to say the finds made in the process have been remarkably few, although careful watch has been kept in view of the possible disinterment of relics. Perhaps the most noteworthy features observable have been the demolition of the workshop of Thomas Bewick in St Nicholas's churchyard, of the birthplace of admiral lord Collingwood at the Head of the Side, and the total disappearance of the frontage from that point downwards in the steep thoroughfare to the lower Side. Most of the houses were timber-framed from ground to ridge, with upper storeys projecting over the pathway, giving a seventeenth century aspect to the acclivity. Some of the shops retained to the last their unglazed and perfectly open 'bulks,' where, until the middle of the nineteenth century, the flax-dresser's stock might be seen, with its carded bundles ready for the spinning wheel, while the merchant himself stood white-

aproned beside his scale-beam, the entire establishment lying open to the street. One result of the operations in the Side has been to open out the conduit in which the stream, formerly flowing between the tower of St. Nicholas and Denton chare (supplying on its way the Pant at the Head of the Side), had long been confined. The demolition of the seventeenth century houses disclosed, too, the earlier medieval street line and the great retaining wall of the churchyard behind. Many walls and foundations of ancient masonry, in which ashlar courses had been constructed from yet earlier materials, stood conspicuous in the area. The appearance of the site clearly indicates that as the thoroughfare had been improved and the stream bed raised to carry a wider pavement the ground recovered between the medieval buildings and the stream had been utilized as the site of the seventeenth century frontage now demolished.

In this connexion your council, hearing that negotiations were in progress for the sale of the open site on the north side of the Black Gate, agreed to appoint a deputation to the Corporation on the subject. This piece of ground was originally occupied by a group of half-timber houses, built on the western extremity of what was formerly known as 'Laurence Acton's Waste,' a steep slope lying between the enceinte of the castle and the thoroughfare from the Head of the Side to the 'Dog Loup' stairs. The uppermost buildings on this street line had long screened the Black Gate from public view; their removal in 1877 not only revealed the thirteenth century masonry of the great gate, but formed an open space in a congested locality and added a striking feature to the town by the view thus disclosed. For the first time in modern days it became possible to appreciate the group of historic buildings formed by the castle, the Black Gate and the cathedral church of Saint Nicholas, now made visible from the main thoroughfare. These features are justly admired by every visitor to Newcastle as the most characteristic association of buildings in the city. The Parks Committee of the Corporation had added greatly to the effect at this point by enclosing and planting it. It was therefore with some dismay that your council heard of a contemplated sale of the ground for the erection of business premises on the site, a project which would have screened from view the northern face of the bastion, and marred the unique prospect. Our president

cordially approved of the resolution of protest and the deputation formed to wait upon the Estates and Property Committee of the Corporation on April 28th last, was accompanied by Sir B. C. Browne, Mr. C. W. Mitchell, and Mr. L. W. Adamson, LL.D., receiving besides the support of Mr. Wigham Richardson, Mr. Robert Knight, and other influential citizens, unable to be present in person. The case of our society, introduced to the committee of the City Council by Mr. Dendy, seconded by Sir B. C. Browne and Dr. Adamson, was listened to with attention, and the deputation received assurance that their protest should meet with every consideration.

One of the features of the past year has been the increasing number of societies attracted to the castle and to the Black Gate museum. Parties of these, chiefly young people connected with various organisations, have from time to time availed themselves of the special charge made for admission in such cases. Their evident interest in the objects belonging to our society suggests the desirability of still further popularizing the study of antiquities by systematic effort in this direction. It will be remembered that this was a function recognised by our early members, and the present time is opportune for enlisting an intelligent interest in the objects of our pursuit. Your council therefore recommend for consideration the question of holding a series of lectures to be arranged for experimentally during next winter. It might be possible in this way to secure on occasion distinguished men from a distance as well as to utilize the services of specialists in our own membership.

For the purpose of our ordinary monthly meetings, the library has undergone repairs in making tight the window frames and in instituting a new warming apparatus. It is hoped that our meetings may henceforth take place under greatly ameliorated conditions, and that a largely increased attendance of members may justify the changes effected.

In conclusion, your council refer with pleasure to the publication in the past year of the sixth volume of the Northumberland County History, the appearance of which was anticipated in our last report. The volume deals with the twin parishes of Bywell, and the various township histories are detailed with the research and ability which we are accustomed to look for in the work of the indefatigable



editor, our colleague, Mr. J. Crawford Hodgson. The book also possesses a special attraction in its monograph on the Baliols, formerly lords of the barony of Bywell. This important section traces the rise and fall of a name vastly prominent in English and Scottish history but never before treated with the research, the discrimination of character, and the mastery of detail here shown. Its particular interest to ourselves lies in the fact that it is the work of our distinguished and venerable vice-president, the rev. W. Greenwell.

The following is the

**TREASURER'S REPORT, WITH BALANCE SHEET FOR THE YEAR  
ENDING 31ST DECEMBER, 1902.**

The number of members at present on the roll is 335—namely, 331 ordinary and 4 life members. During the year nine members have resigned, seven have died, the membership of three has lapsed through their leaving the district, and one has been struck off the roll by order of the council, a total of 20; while twelve new members have been elected.

The total income for the year (together with the balance brought forward) has been £604 9s. 10d., and the expenditure £533 3s. 1d., leaving a credit balance of £71 6s. 9d. The increased expenditure on the *Archaeologia Aeliana* (being an increase of £88 15s. 0d.) was anticipated in last year's report, while the cost of printing the *Proceedings* shows an increase of £2 10s. 0d. only. The expenditure on illustrations has been £6 15s. 4d. less than last year, while the sundries account also shows a decrease of £16 10s. 1d.

It is gratifying to note that the receipts at the Castle still continue to advance, showing a total for the year of £128 16s. 0d., as against £119 17s. 3d. for 1901, an increase of £8 18s. 9d. The increase at the Black Gate is £1 19s. 2d.

The amount received for books sold is £26 1s. 3d., as against £12 5s. 9d., an increase of £13 15s. 6d.

The cost of printing and illustrating the *AESICA* report amounts to £23 10s. 1d., which is included in this year's accounts.

A detailed statement of the expenditure accompanies the balance sheet.

**R. S. NISBET, TREASURER, IN ACCOUNT WITH THE SOCIETY OF  
ANTIQUARIES OF NEWCASTLE-UPON-TYNE.**

**STATEMENT OF RECEIPTS AND EXPENDITURE FOR THE YEAR ENDING  
31ST DECEMBER, 1902.**

	Receipts.	Expenditure.
	£ s. d.	£ s. d.
Balance 1st January, 1902 ... ..	77 3 1	
Members' Subscriptions ... ..	345 9 0	
Castle ... ..	128 16 0	72 2 8
Black Gate ... ..	27 0 6	34 9 0
Books sold at Castle ... ..	26 1 3	
Books bought ... ..		48 10 0
<b>PRINTING :—</b>		
<i>Archaeologia Aeliana</i> ... ..		161 12 0
<i>Proceedings</i> ... ..		59 8 0
Illustrations ... ..		46 13 3
Sundries ... ..		70 8 2
Secretary, for clerical assistance ... ..		40 0 0
Balance in Bank ... ..	£71 0 3	
Do. Treasurer's hands ... ..	0 6 6	
	£604 9 10	£604 9 10

**Investments.**

		£ s. d.
2½ per cent. Consols as at 31st December, 1902 ... ..		42 18 5
In Post Office Savings Bank on 31st December, 1901 ... ..	£40 1 1	
Add interest for the year ... ..	2 3 5	42 4 6
		£85 2 11

Examined with Vouchers and found correct,

HERBERT M. WOOD,

Chartered Accountant.

Sunderland,

16th January, 1903.

**Details of Expenditure.**

	£ s. d.		£ s. d.
<b>CASTLE—</b>		<b>BLACK GATE—</b>	
Wages of Attendant ... ..	65 0 0	Wages of Attendant ... ..	20 16 0
Insurance ... ..	0 7 6	Rent ... ..	1 0 0
Rent ... ..	0 2 6	Income Tax ... ..	2 3 9
Income Tax ... ..	2 13 5	Water Rate ... ..	1 0 0
Water Rate ... ..	0 6 0	Gas Account ... ..	3 4 10
Gas Account ... ..	0 16 7	Coals ... ..	1 16 0
Repairs ... ..	1 4 3	Repairs ... ..	3 11 2
Coals ... ..	0 18 0	Sundries: Brushes, &c....	0 17 3
Sundries: firewood, candles, &c. ... ..	0 14 5		£84 9 0
	£72 2 8		

BOOKS BOUGHT, ETC.—

	£	s.	d.	£	s.	d.
Subscriptions to Societies—						
Parish Register Society ... ..	1	1	0			
Harleian Society ... ..	1	1	0			
Surtees Society ... ..	1	1	0			
Durham & Northumb <sup>d</sup> Parish Register Society ...	0	10	6			
				3	13	6
Printing 1,000 Guides to Black Gate and Keep ... ..				11	15	0
<i>Oxford Dictionary</i> ... ..				2	3	9
<i>English Dialect Dictionary</i> ... ..				1	1	0
<i>Calendar of Pat. Rolls, Henry VI., vol. 1</i> ... ..				0	15	0
<i>Antiquary and Notes and Queries</i> ... ..				1	10	10
<i>The Northern Genealogist</i> , vols. iv. and v. ... ..				1	1	0
Burke's <i>Armoury</i> ... ..				4	0	0
St. John Hope's <i>Windsor Stall Plates</i> , last part ... ..				0	12	10
<i>Monastic Seals of the XIII. Century</i> ... ..				1	1	6
<i>Victoria History of Cumberland</i> ... ..				1	11	6
<i>Corp. Inscip. Lat.</i> , vol. xiii. ... ..				2	0	0
Asher & Co. for Transactions of Imperial German Archaeo- logical Institute ... ..				1	1	6
<i>Reliquary and Illustrated Archaeologist</i> ... ..				0	10	0
Rev. E. A. Downam for plans of earthworks (original drawings)				2	12	3
General Pitt Rivers, <i>Art of Benin</i> ... ..				0	12	6
Sepulchral Slabs ... ..				0	7	6
<i>Report on the Antonine Wall</i> ... ..				0	10	10
Lang's <i>History of Scotland</i> , vol. ii. ... ..				0	15	0
<i>The Scottish Antiquary</i> , vols. 16 and 17 ... ..				0	9	0
Otto Peters, <i>Obergermanisch-Ractische Limes</i> ... ..				0	15	9
Tynemouth Parish Register ... ..				0	2	0
<i>Year Book of Learned Societies</i> ... ..				0	7	6
J. C. Wilson for bookbinding ... ..				3	5	3
F. Sanderson, for binding 10 vols. of the 'Brooks Collection'				5	15	0
				<u>£48</u>	<u>10</u>	<u>0</u>

SUNDRIES—

	£	s.	d.
Geo. Nicholson, for general printing ... ..	27	18	9
A. Reid & Co., Ltd., for sundries ... ..	5	10	9
Postage of <i>Archæologia</i> , etc. ... ..	7	16	4
Carriage of books and various parcels ... ..	1	4	9
Deed book and lettering same ... ..	0	11	0
Cheque book ... ..	0	5	0
Copper plate of 'Joe the Quilter's' cottage ... ..	0	15	6
Richardson & Co., for painting casts ... ..	0	2	6
Fire insurance premium on the 'Brooks Collection'	1	16	6
Fire insurance premium for 'Black Gate' ... ..	2	15	0
Secretary's out of pocket expenses ... ..	16	11	7
Treasurer's do. do. ... ..	1	17	6
Index to <i>Archæologia Aeliana</i> , vol. xxiv. ... ..	3	3	0
	<u>£70</u>	<u>8</u>	<u>2</u>

## CURATORS' REPORT FOR 1902.

During the year ten contributors have added gifts to the society's collection, particulars of which are given in the following list:—

1902.

## DONATIONS TO THE MUSEUM.

- Feb. 26. From EDITH, lady COMPTON-THORNHILL:—Portion of a pre-conquest cross shaft, 30 inches long, with two fragmentary portions of other shafts. Discovered at Carham. (*Proceedings*, vol. x. p. 153). Several coins, including a third brass of Constantine II.; a penny of Henry III.; groats of Edward III. and IV.; a gold quarter-noble of Henry V. or VI.; Calais groat of Henry VI.; half-groat of Henry VII.; shilling of Elizabeth (found at Gallows-hill, Wark-on-Tweed); shilling of Charles II.; five Scottish bawbees and seven bodles of Charles II.; bodle of William and Mary; small Danish silver coin of Christian VII.; and a Nuremberg counter (*Proceedings*, vol. x. p. 154).
- Mar. 26. From Mr. T. H. ARCHER HIND, of Newton Abbot:—Coins, tokens and medals, found at various times at Morris Hall, near Norham Castle; also a papal *bulia* and a decorated spindle whorl. 31 of the coins are of silver, and 307—coins, tokens and medals—are chiefly of copper. Nine second and third brass Roman coins occur in the collection (*Proceedings*, vol. x. pp. 167-8).
- “ “ From Mr. JOHN WILSON, Leazes Park:—A pair of bowls used at Tudhoe in the middle of the last century (*Proceedings*, vol. x. p. 169).
- May 28. From Mr. C. WINTER:—Arms of the town of Newcastle-upon-Tyne, carved in wood, painted and gilded; from the canopy of the mayor's seat in the Corporation pew, formerly standing in the north aisle of the chancel of St. Nicholas's church, Newcastle (*Proceedings*, vol. x. p. 182).
- “ “ From Mr. MILLER CHRISTY, Chelmsford:—An adjustable pot-hook from an Essex cottage fire-place (*ibid.*).
- July 30. From THE MAYOR OF NEWCASTLE:—Two coronation medals in bronze struck 'in celebration of the Coronation of Their Majesties King Edward VII., and Queen Alexandra, June 26, 1902.' The date was anticipatory, for the king's illness prevented the actual ceremony until Saturday, August 9 (*Proc.*, vol. x. p. 234).
- Aug. 27. From Mr. ROBERT SPENCE, North Shields: Working model of a mangonel, a military engine used in the period between the twelfth and fourteenth centuries, for slinging heavy projectiles of stone. (*Proceedings*, vol. x. p. 269).
- “ “ From R. BLAIR (one of the secretaries):—Iron slag found on the moors near Keyhurst farm, Netherwitton, Northumberland (*ibid.*).
- Sep. 24. From B. OLIVER HESLOP (one of the secretaries): Old clasp knife found in the Willington Quay ballast hill, 1902 (*Proceedings*, vol. x. p. 294).
- Nov. 26. From Sir H. W. SETON-KARR, M.P.:—A number of pre-historic flints, etc., from Somaliland and Egypt.

THE COUNCIL AND OFFICERS OF THE SOCIETY  
FOR THE YEAR MDCCCIII.

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**Patron and President.**

HIS GRACE THE DUKE OF NORTHUMBERLAND, K.G., F.S.A.

**Vice-Presidents.**

HORATIO ALFRED ADAMSON.  
ROBERT RICHARDSON DEES.  
JOHN VESSEY GREGORY.  
THE REV. WILLIAM GREENWELL, D.C.L., F.R.S., F.S.A., &c.  
THOMAS HODGKIN, D.C.L., F.S.A., &c.  
CHARLES JAMES SPENCE.  
RICHARD WELFORD, M.A.  
THOMAS TAYLOR, F.S.A.  
LAWRENCE WILLIAM ADAMSON, LL.D.  
FREDERICK WALTER DENDY.  
ROBERT COLTMAN CLEPHAN, F.S.A.  
JOHN CRAWFORD HODGSON, F.S.A.

**Secretaries.**

ROBERT BLAIR, F.S.A.  
RICHARD OLIVER HESLOP, M.A., F.S.A.

**Treasurer.**

ROBERT SINCLAIR NISBET.

**Editor.**

ROBERT BLAIR.

**Librarian.**

JOSEPH OSWALD.

**Curators.**

CHARLES JAMES SPENCE.  
RICHARD OLIVER HESLOP.

**Auditors.**

JOHN MARTIN WINTER.  
HERBERT MAXWELL WOOD.

**Council.**

REV. CUTHBERT EDWARD ADAMSON, M.A.  
REV. JOHNSON BAILY, M.A.  
REV. DOUGLAS HENRY BOUTFLOWER, M.A.  
PARKER BREWIS.  
SIDNEY STORY CARR.  
DAVID DIPPY DIXON.  
JOHN PATTISON GIBSON.  
GEORGE IRVING.  
WILLIAM HENRY KNOWLES, F.S.A.  
REV. HENRY EDWIN SAVAGE, M.A.  
WILLIAM WEAVER TOMLINSON.  
REV. JOHN WALKER, M.A.

**MEMBERS OF THE  
SOCIETY OF ANTIQUARIES OF NEWCASTLE-UPON-TYNE  
ON THE 1ST MARCH, 1903.**

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**HONORARY MEMBERS.**

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Date of Election.	
1883 June 27	Professor Mommsen, Marchstrasse 8, Charlottenburg bei Berlin.
1883 June 27	Dr. Hans Hildebrand, Royal Antiquary of Sweden, Stockholm.
1883 June 27	Ernest Chantre, Lyons.
1886 June 30	Ellen King Ware (Mrs.), The Abbey, Carlisle.
1886 June 30	Gerrit Assis Hulsebos, Lit. Hum. Doct., &c., Utrecht, Holland.
1886 June 30	Professor Edwin Charles Clark, LL.D., F.S.A., &c., Cambridge.
1892 Jan. 27	Sir John Evans, K.C.B., D.C.L., F.S.A., Nash Mills, Hemel Hempstead.
1896 Oct. 28	Professor Ad. de Ceuleneer, Rue de la Confrérie 5, Ghent, Belgium.

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## ORDINARY MEMBERS.

The signs \* indicates that the member has compounded for his subscription, and  
† that the member is one of the Council.

Date of Election	
1885 Mar. 25	Adams, William Edwin, The Pollards, Thurlow Hill, Torquay.
1883 Aug. 29	†Adamson, Rev. Cuthbert Edward, Westoe, South Shields.
1873 July	†Adamson, Horatio Alfred, 29 Percy Gardens, Tynemouth.
1892 Aug. 31	†Adamson, Lawrence William, LL.D., 2 Eslington Road, Newcastle.
1885 Oct. 28	Adie, George, 46 Bewick Road, Gateshead.
1885 June 24	Allgood, Miss Anne Jane, Hermitage, Hexham.
1886 Jan. 27	Allgood, Robert Lancelot, Titlington Hall, Alnwick.
1898 Mar. 30	Allison, Thomas M., M.D., 22 Ellison Place, Newcastle.
1893 Sept. 27	Archer, Mark, Farnacres, Gateshead.
1899 Oct. 25	Armstrong, Miss Mary, The Elms, Gosforth, Newcastle.
1884 Jan. 30	Armstrong, Thomas John, 14 Hawthorn Terrace, Newcastle.
1892 Mar. 30	Armstrong, William Irving, South Park, Hexham.
1897 Nov. 24	Arnison, William Drewitt, M.D., 2 Saville Place, Newcastle.
1896 July 29	†Baily, Rev. Johnson, Hon. Canon of Durham and Rector of Ryton.
1893 Feb. 22	Baumgartner, John Richard, 10 Eldon Square, Newcastle.
1894 July 25	Bell, W. Heward, Seend, Melksham, Wiltshire.
1892 April 27	Bell, Thomas James, Cleadon, near Sunderland.
1900 May 30	Blair, Charles Henry, 32 Hawthorn Road, Gosforth, Newcastle.
1874 Jan. 7	†Blair, Robert, F.S.A., South Shields.
1892 Mar. 30	Blenkinsopp, Thomas, 3 High Swinburne Place, Newcastle.
1896 Dec. 23	Blumer, G. Alder, M.D., Butler Hospital for the Insane, Providence, Rhode Island, U.S.A.
1892 Dec. 28	Bodleian Library, The, Oxford.
1892 June 29	Bolam, John, Bilton, Lesbury, R.S.O., Northumberland.
1897 July 28	Boot, Rev. Alfred, St. George's Vicarage, Jesmond, Newcastle.
1883 Dec. 27	Bosanquet, Charles B. P., Rock, Alnwick, Northumberland.
1898 July 27	Bosanquet, Robert Carr, The British School at Athens.
1883 Dec. 27	†Boutflower, Rev. D. S., Vicarage, Monkwearmouth.
1883 June 27	Bowden, Thomas, 42 Mosley Street, Newcastle.
1892 May 25	Bowes, John Bosworth, 18 Hawthorn Street, Newcastle.
1899 Aug. 30	Bowes, Richard, Monkend, Croft, Darlington.
1894 Feb. 28	Boyd, William, North House, Long Benton.
1898 Mar. 30	Bramble, William, New Benwell, Newcastle.
1892 Aug. 31	†Brewis, Parker, 32 Osborne Road, Newcastle.
1896 July 29	Brock-Hollinshead, Mrs., 30 Montpellier Villas, Cheltenham.
1897 Nov. 24	Brooks, Miss Ellen, 14 Lovaine Place, Newcastle.



XXIV THE SOCIETY OF ANTIQUARIES OF NEWCASTLE-UPON-TYNE.

Date of Election.	
1892 Feb. 24	Brown, George T., 51 Fawcett Street, Sunderland.
1891 Dec. 23	Brown, The Rev. William, Old Elvet, Durham.
1893 June 28	Browne, Thomas Procter, Grey Street, Newcastle.
1884 Sept. 24	Bruce, The Hon. Mr. Justice, Yewhurst, Bromley, Kent.
1891 Sept. 30	Burman, C. Clark, L.R.C.P.S. Ed., 12 Bondgate Without, Alnwick.
1889 April 24	Burnett, The Rev. W. R., Kelloe Vicarage, Coxhoe, Durham.
1888 Nov. 28	Burton, William Spelman, 2 Elmfield Villas, Elmfield Road, Gosforth.
1884 Dec. 30	Burton, S. B., Jesmond House, Highworth, Wilts.
1897 Jan. 27	Butler, George Grey, Ewart Park, Wooler.
1887 Nov. 30	Cackett, James Thoburn, 24 Grainger Street, Newcastle.
1885 April 29	Carlisle, The Earl of, Naworth Castle, Brampton.
1892 July 27	†Carr, Sidney Story, 14 Percy Gardens, Tynemouth.
1883	Carr, Rev. T. W., Long Rede, Barming, Maidstone, Kent.
1896 Oct. 28	Carr-Ellison, H. G., Windsor Terrace, Newcastle.
1884 Feb. 27	Carr-Ellison, J. R., Hedgeley, Alnwick, Northumberland.
1901 Feb. 27	Carrick, Frederick, 1 Sedgewick Place, Gateshead.
1894 Jan. 31	Carse, John Thomas, Amble, Acklington.
1887 Oct. 26	Challoner, John Dixon, Mosley Street, Newcastle.
1892 Feb. 24	Charlton, Oswin J., LL.B., 1 Eldon Square, Newcastle.
1885 May 27	Chetham's Library, Hunt's Bank, Manchester.
1895 Nov. 27	Clapham, William, Park Villa, Darlington.
1898 Aug. 27	Clayton, Mrs. N. G., Chesters, Humshaugh.
1883 Dec. 27	†Clephan., Robert Coltman, Marine House, Tynemouth.
1893 July 26	Cooper, Robert Watson, 2 Sydenham Terrace, Newcastle.
1892 Aug. 31	Corder, Herbert, 1 Carlton Terrace, Sunderland.
1886 Sept. 29	Corder, Percy, Pilgrim Street, Newcastle.
1893 July 26	Corder, Walter Shewell, 4 Rosella Place, North Shields.
1898 Feb. 23	Crawhall, Rev. T. E., Vicarage, North Shields.
1892 Oct. 26	Cresswell, G. G. Baker, Junior United Service Club, London, S. W.
1898 Nov. 30	Cresswell, Lionel, Woodhall, Calverley, Yorks.
1896 Feb. 26	Cruddas, W. D., Haughton Castle, Humshaugh.
1897 Dec. 15	Culley, Francis John, 5 Northumberland Terrace, Tynemouth.
1889 Aug. 28	Culley, The Rev. Matthew, Esh, co. Durham.
1888 Mar. 28	Darlington Public Library, Darlington.
1844 about	†Dees, Robert Richardson, Pilgrim Street, Newcastle.
1887 Aug. 31	†Dendy Frederick Walter, Eldon House, Jesmond, Newcastle.
1884 Mar. 26	Dickinson, John, Park House, Sunderland.
1883 June 27	Dixon, John Archbold, 5 Wellington Street, Gateshead.
1884 July 2	†Dixon, David Dippie, Rothbury.
1898 Aug 27	Dodds, Edwin, Low Fell, Gateshead.
1884 July 30	Dotchin, J. A., 65 Grey Street, Newcastle.

Date of Election.	
1900 Jan. 31	Dowson, John, Morpeth.
1897 May 26	Drummond, Dr., Wyvestow House, South Shields.
1891 Aug. 31	Durham Cathedral Library.
1902 Aug. 27	Ellis, The Hon. and Rev. William, Bothalhaugh, Morpeth.
1883 Oct. 31	Emley, Fred., Ravenshill, Durham Road, Gateshead.
1886 Aug. 28	Featherstonhaugh, Rev. Walker, Edmundbyers, Blackhill.
1901 Feb. 27	Fenwick, Featherston, County Chambers, Westgate Road, Newcastle.
1865 Aug. 2	Fenwick, George A., Bank, Newcastle.
1900 Oct. 31	Fenwick, Miss Mary, Lingy Acre, Portinscale, Cumberland.
1894 Nov. 28	Ferguson, John, Dene Croft, Jesmond, Newcastle.
1894 May 30	Forster, Fred. E., 32 Grainger Street, Newcastle.
1887 Dec. 28	Forster, John, 26 Side, Newcastle.
1894 Oct. 31	Forster, Robert Henry, Artillery Mansions, 75 Victoria Street, London, S.W.
1894 Oct. 31	Forster, Thomas Emmerson, 3 Eldon Square, Newcastle.
1895 Jan. 30	Forster, William Charlton, 33 Westmorland Road, Newcastle.
1892 April 27	Francis, William, 20 Collingwood Street, Newcastle.
1859 Dec. 7	Gibb, Dr., Westgate Street, Newcastle.
1883 Oct. 31	†Gibson, J. Pattison, Hexham.
1879	Gibson, Thomas George, Lesbury, R.S.O., Northumberland.
1903 Jan. 28	Gibson, William James, Bedlington, R.S.O., Northumberland.
1901 July 31	Gjemre, E. W., Ferndene, Gosforth, Newcastle.
1878	Glendinning, William, 4 Lovaine Place, Newcastle.
1886 June 30	Gooderham, Rev. A., Vicarage, Chillingham, Belford.
1886 Oct. 27	Goodger, C. W. S., 20 Percy Gardens, Tynemouth.
1895 Sept. 25	Gough, Rev. Edward John, D.D., Vicar and Canon of Newcastle.
1894 Aug. 29	Gradon, J. G., Lynton House, Durham.
1886 Aug. 28	Graham, John, Findon Cottage, Sacriston, Durham.
1883 Feb. 28	Green, Robert Yeoman, 11 Lovaine Crescent, Newcastle.
1891 Oct. 28	Greene, Charles R., North Seaton Hall, Newbiggin-by-the-Sea.
1845 June 3	†Greenwell, Rev. William, D.C.L., F.R.S., F.S.A., Hon. F.S.A. Scot., Durham.
1883 Feb. 28	Greenwell, His Honour Judge, Greenwell Ford, Lanchester.
1877 Dec. 5	†Gregory, John Vessey, 10 Framlington Place, Newcastle.
1891 Jan. 28	Haggie, Robert Hood, Blythwood, Osborne Road, Newcastle.
1893 Mar. 8	Hall, Edmund James, Dilston Castle, Corbridge.
1883 Aug. 29	Hall, James, Tynemouth.
1884 Mar. 26	Harrison, Miss Winifred A., 9 Osborne Terrace, Newcastle.
1898 Aug. 30	Hastings, Lord, Melton Constable, Norfolk.
1898 July 29	Haswell, F. R. N., Monkseaton, Whitley, R.S.O., Northumberland.

XXVI THE SOCIETY OF ANTIQUARIES OF NEWCASTLE-UPON-TYNE.

Date of Election.	
1889 Feb. 27	*Haverfield, F. J., F.S.A., Christ Church, Oxford.
1901 Mar. 27	Heatley, William Robertson, 4 Linden Villas, Gosforth, Newcastle.
1894 May 30	Hedley, Edward Armorer, Windsor Crescent, Newcastle.
1886 April 28	Hedley, Robert Cecil, Corbridge.
1901 Nov. 27	Henderson, William Frederick, Moorfield, Newcastle.
1902 Jan. 29	Henzell, Charles William, Northumberland Terrace, Tynemouth.
1883 Feb. 28	†Heslop, Richard Oliver, 12 Princes Buildings, Aken-side Hill, Newcastle.
1888 April 25	Hindmarsh, William Thomas, Alnbank, Alnwick.
1882	Hodges, Charles Clement, Hexham.
1865 Aug. 2	†Hodgkin, Thomas, D.C.L., F.S.A., Barmoor Castle, Beal, Northumberland.
1895 Jan. 30	Hodgkin, Thomas Edward, Bank, Newcastle.
1899 June 28	Hodgson, George Bryan, Harton, near South Shields.
1890 Jan. 29	†Hodgson, John Crawford, F.S.A., Abbey Cottage, Alnwick.
1884 April 30	Hodgson, John George, Exchange Buildings, Quayside, Newcastle.
1901 Nov. 27	Hodgson, M. N., 11 Myrtle Crescent, South Shields.
1898 Aug. 27	Hodgson, T. Hesketh, Newby Grange, Carlisle.
1887 Jan. 26	Hodgson, William, Westholme, Darlington.
1900 July 25	Hodgson, William George le Fleming Lowther, Dee View, Trevor, Llangollen, N. Wales.
1895 July 31	Hogg, John Robert, North Shields.
1895 Dec. 18	Holdsworth, David Arundell, 2 Rectory Terrace, Gosforth, Newcastle.
1891 Oct. 28	Holmes, Ralph Sheriton, Mosley Street, Newcastle.
1901 Oct. 30	Hopkins, C. W. Innes, the Tower, Ryton.
1892 June 29	Hopper, Charles, Monkend, Croft, Darlington.
1876	Hoyle, William Aubone, The Croft, Ovingham.
1896 April 29	Hudson, Robert, Hotspur Street, Tynemouth.
1896 July 29	Hulbert, Rev. C. L., Brathay Vicarage, Ambleside.
1888 July 25	Hunter, Edward, Wentworth, Gosforth, Newcastle.
1897 Dec. 15	Hutchinson, Edward, The Elms, Darlington.
1886 May 26	†Irving, George, West Fell, Corbridge.
1900 Jan. 31	Jobling, James, Morpeth.
1882	Johnson, Rev. Anthony, Healey Vicarage, Riding Mill.
1883 Aug. 29	Johnson, Rev. John, Hutton Rudby Vicarage, Yarm.
1883 Feb. 28	Joicey, Sir James, Bart., M.P., Longhirst, Morpeth.
1899 June 28	Keeney, Michael John, 9 Rectory Terrace, Gosforth, Newcastle.
1900 Jan. 31	Kitchin, The Very Rev. G. W., Dean of Durham.
1884 Oct. 29	†Knowles, William Henry, F.S.A., 37 Grainger Street, Newcastle.
1901 Feb. 27	Kyle, Robert, 11 Prudhoe Street, Alnwick.
1899 Feb. 22	Lamb, Miss Elizabeth, Newton Cottage, Chathill.
1896 Dec. 23	Lambert, Thomas, Town Hall, Gateshead.
1897 uly 8	Laws, Dr. Cuthbert Umfreville, 1 St. George's Terrace, Newcastle.

Date of Election.	
1894 Sept. 26	Leeds Library, The, Commercial Street, Leeds.
1899 Nov. 29	Leeson, Richard John, Bank Chambers, Mosley Street, Newcastle.
1902 May 28	Lemon, Allan Bruce, 48 Pilgrim Street, Newcastle.
1897 Jan. 27	Lightfoot, Miss, 5 Saville Place, Newcastle.
1885 April 29	Liverpool Free Library (P. Cowell, Librarian).
1887 June 29	Lockhart, Henry F., Hexham.
1899 July 26	London Library, c/o Williams & Norgate, Henrietta Street, Covent Garden, London.
1896 Nov. 25	Longstaff, Dr. Geo. Blundell, Highlands, Putney Heath, London, S.W.
1901 Aug. 28	Lowe, Rev. Joseph, Hon. Can. of Newc., Vicar of Haltwhistle.
1885 Nov. 6	Lynn, J. R. D., Blyth, Northumberland.
1888 June 27	Macarthy, George Eugene, Pilgrim Street, Newcastle.
1899 Mar. 29	Macauley, Donald, Clive Cottage, Alnwick.
1902 Oct. 27	McDonald, J. C., 2 Nixon Street, Newcastle.
1877	McDowell, Dr. T. W., East Cottingwood, Morpeth.
1902 Mar. 26	McPherson, John C., Benwell Grange, Newcastle.
1884 Mar. 26	Mackey, Matthew, Jun., 36 Highbury, West Jesmond, Newcastle.
1891 May 27	Manchester Reference Library (C. W. Sutton, Librarian).
1899 Aug. 30	Markham, R. M., 9 Eldon Square, Newcastle.
1895 Sept. 25	Marley, Thomas William, Netherlaw, Darlington.
1884 Mar. 26	Marshall, Frank, Mosley Street, Newcastle.
1882	Martin, N. H., Ravenswood, Low Fell, Gateshead.
1900 Jan. 31	Matheson, Thomas, Morpeth.
1891 Mar. 25	Maudlen, William, Dacre House, North Shields.
1899 June 28	May, George, Simonside Hall, near South Shields.
1888 Sept. 26	Mayo, William Swatling, Riding Mill, Northumberland.
1891 Jan. 28	Melbourne Free Library, c/o Melville, Mullen, and Slade, 12 Ludgate Square, London, E.C.
1898 Mar. 30	Milburn, J. D., Guyzance, Acklington.
1891 Aug. 26	Mitcalfe, John Stanley, Percy Park, Tynemouth.
1896 Jan. 29	Mitchell, Charles William, LL.D., Jesmond Towers, Newcastle.
1883 Mar. 28	Moore, Joseph Mason, Harton, South Shields.
1900 Aug. 29	Morrison, Rev. William Wilson, Greatham Vicarage, Stockton.
1883 May 30	Morrow, T. R., The Cave, Fulford, York.
1883 Oct. 13	Motum, Hill, Town Hall, Newcastle.
1886 Dec. 29	Murray, William, M.D., 9 Ellison Place, Newcastle.
1896 Oct. 27	Neilson, Edward, Avondale, Corbridge.
1883 June 28	Nelson, Ralph, North Bondgate, Bishop Auckland.
1900 May 30	Newbiggin, Edward Richmond, 2 Lovaine Place, Newcastle.
1896 April 29	Newcastle, The Bishop of, Benwell Tower, Newcastle.
1884 July 2	Newcastle Public Library.
1902 Sept. 24	Newton, Robert, Brookfield, Gosforth, Newcastle.
1898 May 25	New York Library, c/o Mr. B. F. Stevens, 4 Trafalgar Square, London, W.C.

XViii THE SOCIETY OF ANTIQUARIES OF NEWCASTLE-UPON-TYNE.

Date of Election.	
1900 Feb. 28	Nightingale, George, Whitley, R.S.O., Northumberland.
1896 May 27	†Nisbet, Robert Sinclair, 8 Grove Street, Newcastle.
1885 May 27	Norman, William, 23 Eldon Place, Newcastle.
1893 Feb. 22	Northbourne, Lord, Betteshanger, Kent.
1892 Nov. 30	†Northumberland, The Duke of, Alnwick Castle, Northumberland.
1901 Feb. 27	Ogilvie, Frank Stanley, Rosella House, North Shields.
1897 Oct. 27	Ogle, Capt. Sir Henry A., bart., R.N., United Service Club, Pall Mall, London.
1898 June 28	*Ogle, Bertram Savile, Mill House, Steeple Aston, Oxon.
1898 June 28	Ogle, Newton, 59 Green Street, Grosvenor Square, London.
1901 June 5	Oliver, Arthur M., West Jesmond Villa, Newcastle.
1901 Oct. 30	Oliver, Robert Charles, Bowmen Bank, Morpeth.
1889 Aug. 28	Oliver, Prof. Thomas, M.D., 7 Ellison Place, Newcastle.
1894 Dec. 19	†Oswald, Joseph, 33 Mosley Street, Newcastle.
1901 Jan. 30	Page, Frederick, M.D., 1 Saville Place, Newcastle.
1899 Oct. 25	Palmer, Rev. Thomas Francis, 2 Cousin Street, Sunderland.
1889 Aug. 28	Park, A. D., 11 Bigg Market, Newcastle.
1896 Oct. 28	Parker, Miss Ethel, The Elms, Gosforth, Newcastle.
1884 Dec. 30	Parkin, John S., 11 New Square, Lincoln's Inn, London, W.C.
1898 Jan. 26	Peacock, Reginald, 47 West Sunniside, Sunderland.
1891 Feb. 18	Pease, Howard, Bank, Newcastle.
1884 Sept. 24	Phillips, Maberly, F.S.A., Pevensey, Bycullah Park, Enfield, London.
1880	Philipson, Sir George Hare, M.D., Eldon Square, Newcastle.
1888 Jan. 25	Plummer, Arthur B., Prior's Terrace, Tynemouth.
1898 Feb. 23	Porteus, Thomas, 9 Sefton Road, Birmingham.
1901 Jan. 30	Pritchett, James Pigott, High Row, Darlington
1880	Proud, John, Bishop Auckland.
1896 Mar. 25	Pybus, Rev. George, Grange Rectory, Jarrow
1882	Pybus, Robert, 42 Mosley Street, Newcastle.
1900 April 25	Radford, H. G., Stonehill, East Sheen.
	Ravensworth, The Earl of, Ravensworth Castle, Gateshead.
1887 Aug. 31	Reavell, George, jun., Alnwick.
1883 June 27	Redpath, Robert, 5 Linden Terrace, Newcastle.
1888 May 30	Reed, The Rev. George, Killingworth, Newcastle.
1894 Feb. 28	Reed, Thomas, King Street, South Shields.
1897 April 28	Reid, C. Leopold, Wardle Terrace, Newcastle.
1883 Sept. 26	Reid, William Bruce, Cross House, Upper Clarendon, Newcastle.
1894 May 30	Reynolds, Rev. G. W., Rector of Elwick Hall, Castle Eden, R.S.O.
1902 Oct. 27	Rhodes, Rev. A. O., Vicar of Woodhorn.
1886 Nov. 24	Rich, F. W., Eldon Square, Newcastle.
1894 Jan. 31	Richardson, Miss Alice M., Hollinwood, Torquay.
1891 July 29	Richardson, Frank, Clifton Cottage, Clifton Road, Newcastle.

Date of Election.	
1895 July 31	Richardson, Mrs. Stansfield, Thornholme, Sunderland.
1898 Jan. 26	Richardson, William, Field Head, Willington, Northumberland.
1892 Mar. 30	Riddell, Edward Francis, Melton Road, Oakham, Rutland.
1889 July 31	Ridley, John Philipson, Bank House, Rothbury.
1877	Ridley, The Right Hon. Viscount, Blagdon, Northumberland.
1901 June 5	Ridley, Thomas W., Willimoteswick, Coatham, Redcar.
1883 Jan. 31	Robinson, Alfred J., 55 Fern Avenue, Newcastle.
1900 Aug. 29	Robinson, Rev. F. G. J., Rector of Castle Eden, R.S.O.
1884 July 30	Robinson, John, Delaval House, 3 Broxbourne Terrace, Sunderland.
1900 Mar. 28	Robinson, John David, Beaconsfield, Coatsworth Road, Gateshead.
1882	Robinson, William Harris, 20 Osborne Avenue, Newcastle.
1894 Mar. 25	Robson, John Stephenson, Sunnilaw, Claremont Gardens, Newcastle.
1877	Rogers, Rev. Percy, M.A., 17 Pulteney Street, Bath.
1901 Jan. 30	Rudd, Alfred George, Ivy Croft, Stockton.
1893 April 26	Runciman, Walter, jun., West Denton Hall, Scotswood, Northumberland.
1892 Sept. 28	Rutherford, Henry Taylor, Ayre's Terrace, South Preston, North Shields.
1891 Dec. 23	Rutherford, John V. W., Briarwood, Jesmond Road, Newcastle.
1887 Jan. 26	Ryott, William Hall, 7 Collingwood Street, Newcastle.
1888 July 25	Sanderson, Richard Burdon, Warren House, Belford.
1899 Nov. 29	Savage, Rev. E. Sidney, Rectory, Hexham.
1898 Nov. 29	†Savage, Rev. H. E., Hon. Cancn of Durham and Vicar of St. Hild's, South Shields.
1901 Oct. 30	Schofield, Frederick Elsdon, The Retreat, Morpeth.
1891 Sept. 30	Scott, John David, 4 Osborne Terrace, Newcastle.
1886 Feb. 24	Scott, Walter, Grainger Street, Newcastle.
1888 June 27	Scott, Walter, Holly House, Sunderland.
1888 Oct. 31	Simpson, J. B., Bradley Hall, Wylam.
1895 May 29	Simpson, Robert Anthony, East Street, South Shields.
1889 May 29	Sisson, Richard William, 13 Grey Street, Newcastle.
1901 Aug. 28	Sisterson, Edward, Woodleyfield, Hexham.
1892 Oct. 26	Skelly, George, Alnwick.
1898 Mar. 30	Smith, George, Brinkburn, Gosforth, Newcastle.
1891 Nov. 18	Smith, William, Gunnerton, Barrasford.
1893 Mar. 29	Smith, William Arthur, 71 King Street, South Shields.
1883 June 27	South Shields Public Library.
1901 Jan. 30	Spain, George R. B., Victoria Square, Newcastle.
1866 Jan. 3	*†Spence, Charles James, South Preston Lodge, North Shields.
1883 Dec. 27	Spencer, J. W., Newbiggin House, Kenton, Newcastle
1882	Steavenson, A. L., Holywell Hall, Durham.
1891 Jan. 28	Steel, The Rev. James, D.D., Vicarage, Heworth.

XXX THE SOCIETY OF ANTIQUARIES OF NEWCASTLE-UPON-TYNE.

Date of Election.	
1882	Stephens, Rev. Thomas, Horsley Vicarage, Otterburn, R.S.O.
1887 Mar. 30	Straker, Joseph Henry, Howdon Dene, Corbridge.
1880	Strangeways, William Nicholas, Lismore, 17 Queen's Avenue, Muswell Hill, London, N.
1897 Jan. 27	Sunderland Public Library.
1879	Swan, Henry F., North Jesmond, Newcastle.
1866 Dec. 5	Swinburne, Sir John, bart., Capheaton, Northumberland.
1900 Aug. 29	Tate, William Thomas, Hill House, Greatham.
1895 Feb. 27	Taylor, Rev. E. J., F.S.A., St. Cuthbert's, Durham.
1892 April 27	†Taylor, Thomas, F.S.A., Chipchase Castle, Wark, North Tynedale.
1896 Nov. 25	Temperley, Henry, LL.B., Lambton Road, Brandling Park, New- castle.
1888 Aug. 29	Thompson, Geo. H., Baileygate, Alnwick.
1899 June 28	Thompson, Mrs. George, The Cottage, Whickham, B.S.O.
1898 Dec. 21	Thompson, John, Cradock House, Cradock Street, Bishop Auckland.
1892 June 29	Thomson, James, jun., 22 Wentworth Place, Newcastle.
1902 Feb. 26	Thorburn, H. W., Cradock Villa, Bishop Auckland.
1891 Jan. 28	Thorne, Thomas, Blackett Street, Newcastle.
1888 Oct. 31	Todd, J. Stanley, Percy Park, Tynemouth.
1888 Nov. 28	†Tomlinson, William Weaver, Lille Villa, The Avenue, Monkseaton.
1894 Mar. 28	Toovey, Alfred F., Ovington Cottage, Prudhoe.
1897 April 28	Toronto Public Library, c/o C. B. Cazenove & Sons, Agents, 26 Henrietta Street, Covent Garden, London, W.C.
1897 Mar. 31	Townsend, Brian, 42 Mosley Street, Newcastle.
1900 Oct. 31	*Trinity College Library, Dublin.
1900 May 25	Turnbull William, Whin Bank, Rothbury.
1889 Oct. 30	Vick, R. W., Strathmore House, West Hartlepool.
1894 May 30	Vincent, William, 18 Oxford Street, Newcastle.
1901 Jan. 30	Waddilove, George, Brunton, Wall, North Tyne.
1891 Mar. 25	†Walker The Rev. John, Walton Rectory, Newcastle.
1896 Nov. 25	Walker, John Duguid, Osborne Road, Newcastle.
1896 Oct. 28	Wallis, Arthur Bertram Ridley, B.C.L., 3 Gray's Inn Sq., London.
1889 Mar. 27	Watson-Armstrong, W. A., Cragside, Rothbury.
1892 Oct. 26	Watson, Mrs. M. E., Burnopfield.
1887 Jan. 26	Watson, Thomas Carrick, 21 Blackett Street, Newcastle.
1895 May 29	Weddell, George, 20 Grainger Street, Newcastle.
1879 Mar. 26	†Welford, Richard, Thornfield Villa, Gosforth, Newcastle.
1889 Nov. 27	Wheler, E. G., Swansfield, Alnwick.
1902 Oct. 27	White, Conrad, Kensington Terrace, Newcastle.
1898 Oct. 26	White, R. S., Shirley, Adderston Crescent, Jesmond, Newcastle.
1902 Jan. 29	Whiting, Rev. E. C., St. James's Rectory, Gateshead.
1886 June 30	Wilkinson, Auburn, M.D., 14 Front Street, Tynemouth.

<sup>1</sup> Elected originally Jan. 31, 1876, resigned 1887.

SOCIETIES WITH WHICH PUBLICATIONS ARE EXCHANGED. **xxi**

Date of Election.	
1893 Aug. 30	Wilkinson, William C., Dacre Street, Morpeth.
1896 May 27	Williams, Charles, Glencarn, Monkseaton.
1891 Aug. 26	Williamson, Thomas, jun., Lovaine House, North Shields.
1897 Sept. 29	Willyams, H. J., Barndale Cottage, Alnwick.
1885 May 27	Wilson, John, Archbold House, Newcastle.
1900 April 25	Wilson, J. A. E., Archbold Terrace, Newcastle.
1898 May 25	Windley, Rev. H. C., St. Chad's, Bensham, Gateshead.
1891 Sept. 30	Winter, John Martin, 17 Percy Gardens, Tynemouth.
1900 Nov. 28	Winter, Charles, 30 Brandling Park, Newcastle.
1896 Feb. 26	Wood, Herbert Maxwell, 66 John Street, Sunderland.
1898 Nov. 30	Wood, C. W., Beach Road, South Shields.
1899 Nov. 29	Wood, William Henry, 38 Eldon Street, Newcastle.
1898 April 27	Wooler, Edward, Danesmoor, Darlington.
1897 Oct. 27	Worsdell, Wilson, Gateshead.
1886 Nov. 24	Wright, Joseph, jun., 7, St. Mary's Place, Newcastle.
1894 Oct. 31	Young, Hugh W., F.S.A. Scot., Tortola, Nairn, N.B.

SOCIETIES WITH WHICH PUBLICATIONS ARE EXCHANGED.

- Antiquaries of London, The Society of, Burlington House, London.  
 Antiquaries of Scotland, The Society of, Museum, Edinburgh.  
 Royal Archaeological Institute of Great Britain and Ireland, The, 20 Hanover Square, London, W.  
 Royal Irish Academy, Dublin.  
 Royal Society of Antiquaries of Ireland, The, 7 St. Stephen's Green, Dublin.  
 Royal Society of Ireland, Dublin.  
 Royal Society of Northern Antiquaries of Copenhagen, The.  
 Royal Academy of History and Antiquities, Stockholm, Sweden.  
 Royal Society of Norway, The, Christiania, Norway.  
 Aberdeen Ecclesiological Society, The, 42 Union Street, Aberdeen.  
 Berwickshire Naturalists' Club, The. Museum, Berwick.  
 Bristol and Gloucester Archaeological Society, The, c/o Secretary, The Rev. W. Bazeley, Matson Rectory, Gloucester.  
 British Archaeological Association, The (Secretaries, George Patrick and Rev. H. J. Dukinfield Astley), 1 Gresham Buildings, Basinghall Street, London, E.C.  
 Cambrian Antiquarian Society, The, c/o J. Romilly Allen, F.S.A., 28 Great Ormond Street, London, W.C.  
 Cambridge Antiquarian Society, The, c/o Secretary, T. D. Atkinson, St. Mary's Passage, Cambridge.  
 Canadian Institute of Toronto, The  
 Clifton Antiquarian Club, The, c/o Alfred E. Hudd, 94 Pembroke Road, Clifton, Bristol.  
 Cumberland and Westmorland Antiquarian and Archaeological Society, The, Tullie House, Carlisle.



**XXXII THE SOCIETY OF ANTIQUARIES OF NEWCASTLE-UPON-TYNE.**

- Derbyshire Archaeological Society, The, Market Place, Derby.  
Heidelberg Historical and Philosophical Society, Heidelberg, Germany.  
Huguenot Society, The, c/o Reg. S. Faber, Secretary, 90 Regent's Park Road,  
London, N.W.  
Kent Archaeological Society, Maidstone, Kent.  
Lancashire and Cheshire Historic Society, The, c/o R. D. Radcliffe, M.A., Hon.  
Secretary, Old Swan, Liverpool.  
Literary and Scientific Society, Christiania, Norway.  
London and Middlesex Archaeological Society, The, London Institution, Fins-  
bury Circus, London.  
Nassau Association for the Study of Archaeology and History, The (Verein für  
nassauische Alterthumskunde und Geschichte), Wiesbaden, Germany.  
Numismatic Society of London, The (Secretaries, H. A. Grueber and B. V. Head),  
22 Albemarle Street, London, W.  
Peabody Museum, The Trustees of the, Harvard University, U.S.A.  
Powys-land Club, The, c/o Secretary, T. Simpson Jones, M.A., Gungrog, Welsh-  
pool.  
Shropshire Archaeological and Natural History Society, The, Shrewsbury.  
Smithsonian Institution, The, Washington, U.S.A.  
Société d'Archéologie de Bruxelles, rue Ravenstein 11, Bruxelles.  
Société d'Archéologie de Namur, Namur, Belgium.  
Société d'Émulation d'Abbeville, France.  
Somersetshire Archaeological and Natural History Society, The, Castle, Taunton,  
Somersetshire.  
Suffolk Institute of Archaeology and Natural History, Ipswich.  
Surrey Archaeological Society, The, Castle Arch, Guildford.  
Sussex Archaeological Society, The, The Castle, Lewes, Sussex.  
Thuringian Historical and Archaeological Society, Jena, Germany.  
Trier Archaeological Society, The, Trier, Germany.  
Yorkshire Archaeological Society, The, 10 Park Street, Leeds.

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The *Proceedings* of the Society are sent to the following :—

- Dr. Berlanga, Malaga, Spain.  
The Copyright Office, British Museum, London, W.C.  
W. J. Cripps, C.B., Cirencester.  
Literary and Philosophical Society, Newcastle.  
Robert Mowat, Rue des Feuillantines 10, Paris.  
The Rev. J. F. Hodgson, Witton-le-Wear, R.S.O., co. Durham.  
T. M. Fallow, Coatham, Redcar.
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REPORT  
OF  
**The Society of Antiquaries**  
OF  
NEWCASTLE-UPON-TYNE.

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ANNUAL MEETING, MDCCCIV.

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WITH their ninety-first Annual Report your Council record with regret the death of no fewer than eleven members of our society in the past year.

The Right Hon. the Earl of Ravensworth succeeded his father as president of our society in 1879, and continued in that office until the press of other matters compelled him to resign in 1898. His genial presence in the chair was, in former years, a welcome feature of our annual meetings; whilst his zeal for the society, and his interest in our pursuits were at all times manifested. These characteristics were particularly shown when it fell to his lot to represent our society on special occasions. Thus, when the Royal Archaeological Institute visited Newcastle in 1884 he received its members on behalf of our society. In the following year he formally opened the Blackgate museum. Again, in 1886, he presided at the banquet served in this building to commemorate the pilgrimage of the Roman Wall then undertaken. The addresses given at each of these gatherings were of more than passing interest, and their scope and character were admirably suited to the occasions. In the second of the addresses above referred to, that of 1885, reference was made to the peculiar relation that had existed between his family and the precincts of the old castle, and his lordship's words may be fittingly recalled at this juncture: 'I have a certain interest in this castle,' he said, 'not only as

being a member of this society myself, but from the fact that my ancestors were leaseholders of the Castle Garth for a great number of years. In 1736, my ancestor, Colonel Liddell, entered into competition with no less a body than the municipality of this ancient town; they competed for the renewal of the lease, but he got the best of it, and obtained the lease from the Crown. In 1756 the reversion of this lease was again purchased by the first Lord Ravensworth, but in 1780 it was sold to Mr. Turner, and in 1811 the Newcastle Corporation regained the possession of the Castle Garth and its surroundings.' Our late President was thus doubly related to our society; first, by his regard for the pursuits of our members, and further, in an attachment to this place with its associations of an ancestral possession.

The Rev. Anthony Johnson was elected to our membership in 1882. His monographs on Bywell and Blanchland form valuable contributions to the thirteenth and sixteenth volumes of *Archæologia Aeliana*. A retiring disposition hardly disclosed his capabilities to those only known to him by casual contact. But on the visits of our society to Bywell and to Blanchland, where he acted as guide, his descriptions of the places were of the greatest interest, revealing, as they did, stores of local and general information and a reserve of erudition; and these services were rendered with a kindness and geniality not to be forgotten.

Mr. William Glendenning was elected in 1878, and has thus been associated with us for a quarter of a century. To the end of this long period he sustained an observant interest in our proceedings and was a regular attender of our out-door meetings.

Mr. William Harris Robinson was an ardent collector, whose judgment and taste in matters of art were as conspicuous as his urbane and quiet character was unobtrusive. In his speciality as a numismatist his services were at the call of the investigator, and were at all times willingly rendered. From his election in 1882 until illness prevented, he was constant in his attendance at our meetings, where his kindly presence was always welcomed.

Mr. Robert Yeoman Green, elected 1883, an accomplished naturalist, was always greatly interested in archaeology. He combined a life-long intimacy with a rare knowledge of the history and

antiquities of Newcastle, where his presence suggested a connecting link between our own and an older generation of citizens whose pursuit of knowledge remains one of our worthiest traditions.

Mr. Walter Scott of Sunderland, was elected in 1888, and, although unable by distance to attend our monthly meetings, he took part in our country excursions. He was throughout quietly and observantly interested in our pursuits.

Mr. George Skelly of Alnwick, had been long and widely known as a glossarist and folk-lorist, although his membership dated only from 1892. As a painstaking observer and diligent recorder he enriched the local press from time to time with copious notes on his particular studies.

Mr. David Arundell Holdsworth was elected in 1895, and showed a keen interest in the meetings of the society. To an ardent pursuit of knowledge he added rare powers of exposition, with the promise of useful capabilities in our midst. To our deprivation is added the loss of an eager comrade.

Mr. Charles William Mitchell of Jesmond Towers, joined our membership roll in succession to his father, and was elected in 1896. Circumstances prevented an active participation in our gatherings here; but although a stranger to our meetings he was a cordial friend in all that related to our proceedings. This was shown in a marked degree when our society learned that the frontage of the Blackgate had been threatened with an obstruction. At the call of your council he gave his personal attendance and lent his influence on our behalf with helpful results in averting that threatened misfortune. It was a happiness to be associated with a colleague who had already won distinction in his high calling as an artist, and whose services to his native city had unfolded plans of the brightest promise. To ourselves, as to the community at large, his premature loss is an irreparable deprivation. And, besides, it is the loss of a rare personality; for, as one of his friends has written, 'He was, in a word, of those whom to know with any degree of intimacy is to love; and he lives in the memory as an abiding inspiration.'

Mrs. Brock-Hollinshead of Shap, late of Cheltenham, elected in 1896, as a distant resident was debarred from attendance at our customary meetings; but as a student of archaeology she took a lively

interest in our publications, and was constant in her exchange of books from our library.

Whilst so many lapses fall to be thus enumerated at home, there yet remains for us to record that of a great figure in the wider field of Continental archaeology. Professor Mommsen was elected an honorary member in June, 1883, along with Dr. Emil Hübner, whom he survived by two years. The attachment of these two eminent names to our roll of membership was a distinction to our society, and their removal leaves us all the poorer. Of the veteran Mommsen's services record has already been made by our colleague, Mr. Haverfield.\* It may be mentioned, however, as exemplifying his enduring interest in our concerns that the inscription on the recently discovered Newcastle slab was submitted to him, and his reading of it was received by Mr. Haverfield only a few days before the death of the historian.

In the past year the first part of the twenty-fifth volume of *Archaeologia Aeliana* was issued. It consists of 159 pages, 135 of which are devoted to papers by members. These include the important treatise on 'Early Ordnance in Europe,' by our vice-president, Mr. R. Coltman Clephan, F.S.A., with illustrations. Mr. William Brown, F.S.A., contributes 'Local Muniments' in a series of eighteen documents relating to the two northern counties dating from the twelfth to the fifteenth centuries. They are accompanied by illustrations of seals, descriptions of which are given by Mr. W. H. St. John Hope. The third item is an unfinished paper on 'Dagger Money,' by the late W. H. D. Longstaffe, communicated by Mr. F. W. Dendy. The fourth consists of notes by Mr. Heslop, one of the secretaries, on 'Structural Features of the great Tower of Newcastle.' The fifth contribution relates to the discovery by the Right Rev. Bishop Hornby, of eighteen ancient deeds relating to Gunnerton, dating from the thirteenth to the seventeenth centuries and now printed.

The first volume of the new—the second—series of *Archaeologia Aeliana* is dated 1857 and with the completion of the twenty-fifth volume the resolution of the society to end the series will come into force, and the next ensuing volume will be the first of the third series.

The original issue of our publications was of demy quarto size, measuring 11 by 9 inches, and continued thus in four successive

\* Page 185 of this volume.

volumes bearing the imprints of the years 1822, 1832, 1846 and 1855 respectively. It may be remembered that copperplate and lithography were then in vogue for illustrative purposes. At the annual meeting of 1856 a resolution was adopted to print future publications in demy octavo, and our second series, with its octavo page of eight and three-quarter by five and three-quarter inches, has thus continued unaltered for the past 46 years.

In portability and appearance these last twenty-five volumes leave nothing to be desired ; and, so far as typography is concerned, the demy octavo form might well be continued. But the alteration made of late years in the method of illustration, by which the work of the wood engraver is superseded by the process block, had rendered it desirable to adopt a size of page that will admit a display of the modern method to the greatest advantage. It is accordingly proposed to alter the format of our volumes to a size measuring eight and three-quarter inches high by seven inches wide. No change will thus be made in the height of our volumes, so that they will continue to appear on the shelf in uniform range with the preceding series ; whilst an increased width of nearly an inch and a quarter will add considerably to the capacity of the page for purposes of illustration.

A further change, of which due notice has been given, will be submitted for your consideration at the present annual meeting. In place of the issue half-yearly in covers, hitherto in practice, it is proposed to send out a complete volume of the *Archaeologia Aeliana*, bound in a suitable material, at midsummer in each year.

As the alteration in form and in manner of publication are both in response to a widely-urged request your council trusts that the changes may enhance the appreciation with which our publications are regarded.

Our *Proceedings* with the year 1903 began the first volume of the third series. One hundred and four pages of this publication have been issued in the year besides a large portion of the index to the tenth volume. Copious illustrations, many important articles, with numerous records hitherto inedited, enhance the interest attaching to these reports of our proceedings. The printing of the Elsdon registers brought down to 1813 has also been finished.

In addition to the regular monthly meetings the society has held

out-door meetings in the summer, visiting severally the Roman camp at CILURNUM, with the line of the Wall to Limestone Bank ; Mitford and Newminster ; and Ulgham, Widdrington and Chibburn. Detailed and illustrated reports of these are given in our *Proceedings*.

Two most valuable contributions to local history made in the past year have been the work of members of our society.

Our colleague Mr. George B. Hodgson, in *The Borough of South Shields from the Earliest Period to the Close of the Nineteenth Century*, has placed the community under a debt of obligation. His work embraces an amount of historical and statistical information that will prove a perfect mine of facts and figures in itself. These illustrate in the most complete manner the rise and progress of an important municipality and its relation to the port of Tyne. From an archaeological standpoint the Roman, Anglian and medieval histories are summarized with conspicuous grasp of the subjects, whilst the literary qualities displayed add to Mr. Hodgson's book an attraction of themselves. It is equally fortunate that another local history has been undertaken by one who combines the observation of a naturalist and the erudition of an antiquary with a rare power of graphic delineation. In these qualities Mr. D. D. Dixon has more than realized anticipation in the publication of his *Upper Coquetdale*. A companion volume to the author's *Vale of Whittingham* it adds another interesting section to the history, traditions and folk-lore of the romantic uplands of Northumberland and an appreciation to the charm exercised by their scenery. When the new *County History of Northumberland* in its progress overtakes these areas Mr. Dixon's pages will prove to be of the utmost value. Written in a full knowledge of their abounding interests, the record partakes the freshness of the hills themselves. The qualities of Mr. Hodgson's and Mr. Dixon's volumes call for more than ordinary recognition and congratulation for their respective authors.

An interesting feature has been added to the collection of banners in the great hall of the castle by the presentation of a framed drawing, executed and given by Mr. and Mrs. C. H. Blair. Each banner is blazoned on the drawing, its position on the wall being indicated, so that the plate furnishes a key to the heraldry and may be said to add a final item to the work.

Whilst so much has been done in the past to elucidate the structure and character of the stationary camps on the line of the Wall and elsewhere it is in no small degree remarkable that discoveries in PONS AELII itself have been so few and far between, and that even the exact site of the station is still a matter of conjecture. It is, therefore, with more than ordinary interest that the discoveries made on the site of the Aelian bridge and in what appear to have been the precincts of the camp call for notice. An altar and an inscribed slab, recovered from the debris of the Roman structure in the river bed, furnish, in the one, a dedication to Ocean by the sixth legion (in exact duplicate of design to the Neptune altar from the same site, already in our museum), and in the other a commemoration of Antoninus by Julius Verus his imperial legate and proprætor. The association of Neptune and Ocean thus personified, presents, not only a combination of great rarity, but is pointed out as of significance in its relation to the conquest of Northern Britain. At the same time the accompanying slab may yet prove to have added greatly to our knowledge of the detail of Roman history. With these was found the base of a third altar, the altar itself being yet wanting.

The discoveries of a well-shaped sacrophagus in Hanover Square, accompanied by a second and rough-hewn example near by, are not only important for the sake of the objects themselves but for the indication they furnish of an adjacent highway. They thus afford the first clue yet found to guide our investigations of the direction by which the stationary camp called PONS AELII was reached from the northern abutment of the bridge itself.

It is, finally, a matter of congratulation to record that all these objects have been placed in our museum in the permanent custody of our society.

TREASURER'S REPORT, WITH BALANCE SHEET FOR THE YEAR  
ENDING 31ST DECEMBER, 1903.

The number of members is now 327.

During the year we have lost by death eleven members, twelve have resigned, and two have been struck off the roll, having left the district. Sixteen new members have joined during the twelve months, including one life member. The sum of twelve guineas, paid by the new life member—Lieut.-Col. Cuthbert—has been paid into the Post



Office Savings Bank to the credit of the capital account, in accordance with the council's order of the year 1890 to that effect.

The total revenue for the year has been £598 12s. 11d., and the expenditure £525 4s. 8d., leaving a credit balance of £73 8s. 3d. The capital account now stands at £100 1s. 6d., being £34 12s. 1d. more than it did four years ago.

The exceptionally heavy expenditure on the Castle is accounted for by the two new stoves that have been put in, one in the library and the other in the warden's room, costing £22 10s. 0d. and £5 1s. 3d. respectively.

The combined receipts at the Castle and Blackgate are practically the same as last year—£155 0s. 8d.

The amount spent on the purchase of books has been £14 15s. 10d. less than last year. The illustrations have cost £11 19s. 9d. more, but the sum required for sundries is £14 7s. 6d. less than was expended last year.

Full details of expenditure are herewith attached.

R. S. NISBET, TREASURER, IN ACCOUNT WITH THE SOCIETY OF  
ANTIQUARIES OF NEWCASTLE-UPON-TYNE.

STATEMENT OF RECEIPTS AND EXPENDITURE FOR THE YEAR ENDING  
31ST DECEMBER, 1903.

	Receipts.	Expenditure.
	£ s. d.	£ s. d.
Balance 1st January, 1903	71 6 9	
Members' Subscriptions	350 14 0	
Books sold and bought	21 11 6	33 14 2
Castle	126 8 6	103 16 7
Blackgate	28 12 2	32 12 3
PRINTING :—		
<i>Archæologia Aeliana</i>		111 17 0
<i>Proceedings</i>		74 19 0
Illustrations		58 13 0
Sundries		56 0 8
Secretary, for clerical assistance		40 0 0
Museum		1 0 0
Invested in P.O.S. Bank	£12 12 0	
Balance in Bank	67 1 7	
Do. in Treasurer's hands	6 6 8	
	<hr/>	86 0 3
	<hr/>	<hr/>
	£598 12 11	£598 12 11
	<hr/>	<hr/>

<b>Investments.</b>				£	s.	d.
2½ per cent. Consols as at 3rd December, 1903	...	...	...	42	18	5
In Post Office Savings Bank on 31st December, 1902	...	...	...	42	4	6
Interest for this year	...	...	...	£2	6	7
Deposited this year	...	...	...	12	12	0
				<u>14</u>	<u>18</u>	<u>7</u>
				<u>£100</u>	<u>1</u>	<u>6</u>

Examined with Vouchers and found correct,

JOHN M. WINTER & SONS,

Chartered Accountants.

Newcastle-upon-Tyne,  
15th January, 1904.

**Details of Expenditure.**

CASTLE—	£	s.	d.	BLACK GATE—	£	s.	d.
Wages of Warden	65	0	0	Wages of Attendant	20	16	0
Bonus to Warden on account of extra work	1	5	0	Electric bell fixing	2	1	10
New Stove in Library	22	10	0	Rent	1	0	0
New Stove in Warden's Room	5	1	3	Property Tax	2	6	11
Cork Carpet in do.	1	15	0	Gas Account	3	16	0
Rent	0	2	6	Water do.	1	0	0
Property Tax	2	17	3	Coals	0	17	0
Insurance	0	7	6	Carrying Coals	0	0	9
Gas Account	2	2	8	Repairs	0	3	9
Water do.	0	6	0	Gas-fittings	0	10	0
Coals	0	17	6		<u>£32</u>	<u>12</u>	<u>3</u>
Repairs	0	19	2				
Sundries: firewood, black lacquer, &c.	0	12	9				
	<u>£103</u>	<u>16</u>	<u>7</u>				

**BOOKS BOUGHT, ETC., 1903—**

Subscriptions to Societies—	£	s.	d.	£	s.	d.
Surtees Society	1	1	0			
Harleian Society	1	1	0			
National Trust Society	1	1	0			
Durham & Northumb <sup>d</sup> Parish Register Society	0	10	6			
Tynemouth Parish Registers	0	5	0			
				<u>3</u>	<u>18</u>	<u>6</u>
<i>English Dialect Dictionary</i>				2	2	0
<i>Oxford Dictionary</i>				0	10	6
<i>Catalogue of Ancient Deeds, vol. 4</i>				0	15	0

Carried forward ... £7 6 0

BOOKS BOUGHT, ETC., <i>Continued</i> :—		£	s.	d.
	Brought forward ...	7	6	0
<i>Reliquary and Illustrated Archaeologist</i> ... ..		0	10	0
Asher & Co. for Transactions of Imperial German Archaeo- logical Institute ... ..		2	18	3
Hodgson's <i>Borough of South Shields</i> ... ..		1	1	0
Galloway's <i>The Crossbow</i> and Laking's <i>Armour</i> ... ..		3	13	6
Rev. E. A. Downman for plans of earthworks (original drawings)		2	16	9
Old Plan of Newcastle ... ..		1	1	0
<i>Chesters Museum Catalogue</i> ... ..		0	5	0
Christison's <i>Fortifications</i> ... ..		0	9	4
Roe's <i>Coffers</i> and Bateman's <i>Antiquities</i> ... ..		3	6	6
<i>Early Christian Monuments in Scotland</i> ... ..		3	3	0
<i>The Ancestor</i> , 2 vols. ... ..		0	6	7
<i>State Papers: Ireland</i> ... ..		0	15	0
<i>Year Book of Learned Societies</i> ... ..		0	7	6
Otto Petters, <i>Obergermanisch-Raetische Limes</i> ... ..		0	11	11
J. C. Wilson for bookbinding ... ..		3	19	0
<i>Antiquary and Notes and Queries</i> ... ..		1	3	10
		<hr/>		
		£33	14	2

## SUNDRIES, 1903—

	£	s.	d.
R. Simpson & Sons, for general printing ... ..	8	18	0
Geo. Nicholson do. do. ... ..	2	9	0
A. Dickson do. do. ... ..	4	19	3
A. Reid & Co., Ltd. do. do. ... ..	1	13	2
J. Burnett & Son, for packing and forwarding ancient stones found at Carham ... ..	0	18	7
Postage of <i>Archaeologia</i> , etc. ... ..	5	7	0
Rubber stamp and ink ... ..	0	5	0
Cheque book ... ..	0	5	0
Carriage on books, etc. ... ..	1	0	5
Carriage on box of stone implements from Madras ... ..	0	15	8
Mr. Hughes, framing Plan of Newcastle ... ..	0	4	0
J. A. Dotchin and Co., Sundries ... ..	0	15	5
Preparing indexes: <i>Elsdon Parish Registers</i> and vol. x. of <i>Proceedings</i> ... ..	6	6	0
Secretary's out of pocket expenses ... ..	15	5	2
Treasurer's do. do. ... ..	2	7	6
Fire insurance premium on the 'Brooks Collection' ...	1	16	6
Fire insurance premium for 'Black Gate' ... ..	2	15	0
	<hr/>		
	£56	0	8

## CURATORS' REPORT.

The following donations to the Society's museum have been received during the past year.

1903.

- Feb. 25. From THE NORTH EASTERN RAILWAY CO. (per Mr. Geo. Irving) :—  
A carved stone fireplace jamb, from a house demolished near the Black Gate (*Proceedings*, 3 series vol. I. p. 26).  
From Sir H. W. SETON-KERR, K.C.M.G., M.P. :—Twelve palaeolithic implements discovered by the donor at Poondi, near Madras (*Ibid.*).  
From Mrs. N. G. CLAYTON, The Chesters :—Fifty-six iron arrow heads recently found with a large number of similar missiles in a chamber at Housesteads (BORCOVICUS), (*Ibid.*).
- Mar. 25. From Mr. C. H. BLAIR, Gosforth :—The royal arms of Great Britain and Ireland, of late eighteenth century work, carved in wood. This donation has been fixed on the north wall of the Great Hall in the Keep (*Proceedings*, 3 series vol. I. pp. 29-30).
- April 29. From MESSRS. A. REID & CO., LTD. :—A miner's lamp from Greece of iron and of recent date (*Proceedings*, 3 series vol. I. p. 36).
- May 28. From THE RIVER TYNE COMMISSIONERS (per Mr. James Walker, river engineer) :—A Roman altar dedicated to Ocean by the sixth Legion, found in the river Tyne on the site of the Aelian bridge at Newcastle (*Proceedings*, 3 series vol. I. p. 50).
- July 29. From Mr. J. B. CRONE (per Mr. A. L. Steavenson) :—The blade of a miner's shovel of an early form, and a pick, both conjecturally of the seventeenth or early eighteenth century. The shovel blade is of wood faced with iron on its edge and pierced with a square hole cut obliquely for a shank, with a round hole behind for a strut to the shank.
- Aug. 26. From Mr. J. S. ROBSON, Saville Row, Newcastle :—Eleven copper coins and tokens, eighteenth century (*Proceedings*, 3 series vol. I. p. 71).
- Sept. 30. From THE RIVER TYNE COMMISSIONERS (per Mr. James Walker, river engineer) :—A Roman inscription on a thin slab of fine grained (probably Heworth) sandstone, to Antoninus Pius, found on the site of the Aelian bridge in the bed of the river Tyne at Newcastle, near the altar described above (*Proceedings*, 3 series, vol. I. p. 72).
- Oct. 28. From THE CORPORATION OF NEWCASTLE (per Mr. J. F. Edge, city engineer) :—Two cistern heads, decorated, one dated 1777 ; from leaden downspouts on an old house just demolished between Spicer Lane and the Burn Bank on Newcastle Quay. Also a smoke-jack from the kitchen of the same building (*Proceedings*, 3 series vol. I. p. 94).
- From MESSRS. R. ROBINSON & Co. Ltd. (per Mr. F. W. Rich) :—Two *sarcophagi* of Roman date, with vessel of Caistor ware found in the larger one, and dug up from the clay in Hanover Square, near the head of the Tuthill Stairs, in course of making foundations for a new building (*Proceedings*, 3 series vol. I. p. 95, and *Arch. Ael.*, vol. xxv. p. 147).

THE COUNCIL AND OFFICERS OF THE SOCIETY  
FOR THE YEAR MDCCCIII.

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**Patron and President.**

HIS GRACE THE DUKE OF NORTHUMBERLAND, K.G., F.S.A.

**Vice-Presidents.**

HORATIO ALFRED ADAMSON.  
ROBERT RICHARDSON DEES.  
JOHN VESSEY GREGORY.  
THE REV. WILLIAM GREENWELL, D.C.L., F.R.S., F.S.A., &c.  
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THOMAS TAYLOR, F.S.A.  
LAWRENCE WILLIAM ADAMSON, LL.D.  
FREDERICK WALTER DENDY.  
ROBERT COLTMAN CLEPHAN, F.S.A.  
JOHN CRAWFORD HODGSON, F.S.A.

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ROBERT BLAIR, F.S.A.  
RICHARD OLIVER HESLOP, M.A., F.S.A.

**Treasurer.**

ROBERT SINCLAIR NISBET.

**Editor.**

ROBERT BLAIR.

**Librarian.**

CHARLES HENRY BLAIR.

**Curators.**

CHARLES JAMES SPENCE.  
RICHARD OLIVER HESLOP.

**Auditors.**

JOHN MARTIN WINTER.  
HERBERT MAXWELL WOOD.

**Council.**

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REV. JOHNSON BAILY, M.A.  
PARKER BREWIS.  
SIDNEY STORY CARR.  
DAVID DIPPY DIXON.  
JOHN PATTISON GIBSON.  
GEORGE IRVING.  
WILLIAM HENRY KNOWLES, F.S.A.  
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REV. HENRY EDWIN SAVAGE, M.A.  
WILLIAM WEAVER TOMLINSON.  
REV. JOHN WALKER, M.A.

**MEMBERS OF THE  
SOCIETY OF ANTIQUARIES OF NEWCASTLE-UPON-TYNE  
ON THE 1st JUNE, 1904.**

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**HONORARY MEMBERS.**

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<b>Date of Election.</b>	
1883 June 27	Dr. Hans Hildebrand, Royal Antiquary of Sweden, Stockholm.
1883 June 27	Ernest Chantre, Lyons.
1886 June 30	Ellen King Ware (Mrs.), The Abbey, Carlisle.
1886 June 30	Gerrit Assis Hulsebos, Lit. Hum. Doct., &c., Utrecht, Holland.
1886 June 30	Professor Edwin Charles Clark, LL.D., F.S.A., &c., Cambridge.
1892 Jan. 27	Sir John Evans, K.C.B., D.C.L., F.S.A., Nash Mills, Hemel Hempstead.
1896 Oct. 28	Professor Ad. de Ceuleneer, Rue de la Confrérie 5, Ghent, Belgium.

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ORDINARY MEMBERS.

The signs \* indicates that the member has compounded for his subscription, and  
 † that the member is one of the Council.

Date of Election.	
1885 Mar. 25	Adams, William Edwin, 1 Harley Terrace, Gosforth, Newcastle.
1883 Aug. 29	†Adamson, Rev. Cuthbert Edward, Westoe, South Shields.
1873 July	†Adamson, Horatio Alfred, 29 Percy Gardens, Tynemouth.
1892 Aug. 31	†Adamson, Lawrence William, LL.D., 2 Eslington Road, Newcastle.
1885 Oct. 28	Adie, George, 46 Bewick Road, Gateshead.
1885 June 24	Allgood, Miss Anne Jane, Hermitage, Hexham.
1886 Jan. 27	Allgood, Robert Lancelot, Titlington Hall, Alnwick.
1898 Mar. 30	Allison, Thomas M., M.D., 22 Ellison Place, Newcastle.
1893 Sept. 27	Archer, Mark, Farnacres, Gateshead.
1889 Mar. 27	Armstrong, The Right Hon. Lord, Cragside, Rothbury.
1904 Feb. 24	Armstrong, John Hobart, Brcomley Grange, Stocksfield.
1899 Oct. 25	Armstrong, Miss Mary, The Elms, Gosforth, Newcastle.
1884 Jan. 30	Armstrong, Thomas John, 14 Hawthorn Terrace, Newcastle.
1892 Mar. 30	Armstrong, William Irving, South Park, Hexham.
1897 Nov. 24	Arnison, William Drewitt, M.D., 2 Saville Place, Newcastle.
1904 June 1	Atkinson, Wemyss H., 1 Windsor Place, Newcastle.
1903 Oct. 28	Aynsley, R. J., Rectory Terrace, Gosforth, Newcastle.
1904 Feb. 24	Bailes, Thomas, 2 Fenwick Terrace, Newcastle.
1896 July 29	†Baily, Rev. Johnson, Hon. Canon of Durham and Rector of Ryton.
1893 Feb. 22	Baumgartner, John Richard, 10 Eldon Square, Newcastle.
1894 July 25	Bell, W. Heward, F.S.A., Seend, Melksham, Wiltshire.
1892 April 27	Bell, Thomas James, Cleadon, near Sunderland.
1903 Aug. 26	Bigge, Matthew, 1 St. George's Square, Stamford.
1904 Feb. 24	Bird, Henry Soden, 2 Linden Terrace, Gosforth, Newcastle.
1900 May 30	†Blair, Charles Henry, 32 Hawthorn Road, Gosforth, Newcastle.
1874 Jan. 7	†Blair, Robert, F.S.A., South Shields.
1892 Mar. 30	Blenkinsopp, Thomas, 3 High Swinburne Place, Newcastle.
1896 Dec. 23	Blumer, G. Alder, M.D., Butler Hospital for the Insane, Providence, Rhode Island, U.S.A.
1892 Dec. 28	Bodleian Library, The, Oxford.
1892 June 29	Bolam, John, Bilton, Lesbury, R.S.O., Northumberland.
1897 July 28	Boot, Rev. Alfred, St. George's Vicarage, Jesmond, Newcastle.
1883 Dec. 27	Bosanquet, Charles B. P., Rock, Alnwick, Northumberland.
1898 July 27	Bosanquet, Robert Carr, The British School at Athens.
1883 Dec. 27	Boutflower, Rev. D. S., Vicarage, Monkwearmouth.
1883 June 27	Bowden, Thomas, 42 Mosley Street, Newcastle.
1892 May 25	Bowes, John Bosworth, 18 Hawthorn Street, Newcastle.

Date of Election.	
1899 Aug. 30	Bowes, Richard, Monkend, Croft, Darlington.
1894 Feb. 28	Boyd, William, North House, Long Benton.
1898 Mar. 30	Bramble, William, Moorsley House, Benwell, Newcastle.
1892 Aug. 31	†Brewis, Parker, 32 Osborne Road, Newcastle.
1904 Jan. 27	Brock-Hollinshead, Miss E., 27 Nelson Street, Edinburgh.
1897 Nov. 24	Brooks, Miss Ellen, 14 Lovaine Place, Newcastle.
1892 Feb. 24	Brown, George T., 51 Fawcett Street, Sunderland.
1891 Dec. 23	Brown, The Rev. William, Old Elvet, Durham.
1884 Sept. 24	Bruce, The Hon. Mr. Justice, Yewhurst, Bromley, Kent.
1891 Sept. 30	Burman, C. Clark, L.R.C.P.S. Ed., 12 Bondgate Without, Alnwick.
1889 April 24	Burnett, The Rev. W. R., Kelloe Vicarage, Coxhoe, Durham.
1888 Nov. 28	Burton, William Spelman, 2 Elmfield Villas, Elmfield Road, Gosforth.
1884 Dec. 30	Burton, S. B., Jesmond House, Highworth, Wilts.
1897 Jan. 27	Butler, George Grey, Ewart Park, Wooler.
1887 Nov. 30	Cackett, James Thoburn, 24 Grainger Street, Newcastle.
1885 April 29	Carlisle, The Earl of, Naworth Castle, Brampton.
1892 July 27	†Carr, Sidney Story, 14 Percy Gardens, Tynemouth.
1882	Carr, Rev. T. W., Long Rede, Barming, Maidstone, Kent.
1896 Oct. 28	Carr-Ellison, H. G., 15 Portland Terrace, Newcastle.
1884 Feb. 27	Carr-Ellison, J. R., Hedgeley, Alnwick, Northumberland.
1901 Feb. 27	Carrick, Frederick, 4 Park Terrace, Newcastle.
1894 Jan. 31	Carse, John Thomas, Amble, Acklington.
1887 Oct. 26	Challoner, John Dixon, Mosley Street, Newcastle.
1892 Feb. 24	Charlton, Oswin J., LL.B., 1 Eldon Square, Newcastle.
1904 Jan. 27	Charlton, George V. B., Grafton Underwood, Kettering.
1885 May 27	Chetham's Library, Hunt's Bank, Manchester.
1903 April 29	Clarke, Henry, 27 Dockwray Square, North Shields.
1898 Aug. 27	Clayton, Mrs. N. G., Chesters, Humshaugh.
1883 Dec. 27	†Clephan, Robert Coltman, F.S.A., Marine House, Tynemouth.
1893 July 26	Cooper, Robert Watson, 2 Sydenham Terrace, Newcastle.
1892 Aug. 31	Corder, Herbert, 1 Carlton Terrace, Sunderland.
1886 Sept. 29	Corder, Percy, Pilgrim Street, Newcastle.
1893 July 26	Corder, Walter Shewell, 4 Rosella Place, North Shields.
1903 Sept. 30	Craster, H. H. E., Beadnell Hall, Northumberland.
1898 Feb. 23	Crawhall, Rev. T. E., Vicarage, North Shields.
1892 Oct. 26	Cresswell, G. G. Baker, Junior United Service Club, London, S.W.
1898 Nov. 30	Cresswell, Lionel, Woodhall, Calverley, Yorks.
1896 Feb. 26	Cruddas, W. D., Houghton Castle, Humshaugh.
1897 Dec. 15	Culley, Francis John, 5 Northumberland Terrace, Tynemouth.
1889 Aug. 28	Culley, The Rev. Matthew, St. Mary's, Whittingham, Northumberland.
1903 May 28	*Cuthbert, Lieut. Colonel Gerald G., Scots Guards, 59 Eaton Terrace, London, S.W.



xlvi THE SOCIETY OF ANTIQUARIES OF NEWCASTLE-UPON-TYNE.

Date of Election.	
1888 Mar. 28	Darlington Public Library, Darlington.
1903 Feb. 25	Davies, Wm. Goode, Enfield Lodge, Elswick Road, Newcastle.
1844 about	†Dees, Robert Richardson, Pilgrim Street, Newcastle.
1887 Aug. 31	†Dendy, Frederick Walter, Eldon House, Jesmond, Newcastle.
1884 Mar. 26	Dickinson, John, Park House, Sunderland.
1883 June 27	Dixon, John Archbold, 5 Wellington Street, Gateshead.
1884 July 2	†Dixon, David Dippie, Rothbury.
1898 Aug 27	Dodds, Edwin, Low Fell, Gateshead.
1884 July 30	Dotchin, J. A., 65 Grey Street, Newcastle.
1900 Jan. 31	Dowson, John, Morpeth.
1897 May 26	Drummond, Dr., Wyvestow House, South Shields.
1891 Aug. 31	Durham Cathedral Library.
1904 Jan. 27	Edleston, Robert Holmes, F.S.A., Gainford, Darlington.
1902 Aug. 27	Ellis, The Hon. and Rev. William, Bothalhaugh, Morpeth.
1883 Oct. 31	Emley, Fred., Red House, Low Fell, Gateshead.
1901 Feb. 27	Fenwick, Featherston, County Chambers, Westgate Road, Newcastle.
1865 Aug. 2	Fenwick, George A., Bank, Newcastle.
1900 Oct. 31	Fenwick, Miss Mary, Lingy Acre, Portinscale, Cumberland.
1894 Nov. 28	Ferguson, John, Dene Croft, Jesmond, Newcastle.
1894 May 30	Forster, Fred. E., 32 Grainger Street, Newcastle.
1887 Dec. 28	Forster, John, 26 Side, Newcastle.
1894 Oct. 31	Forster, Robert Henry, Artillery Mansions, 75 Victoria Street, London, S.W.
1894 Oct. 31	Forster, Thomas Emmerson, 3 Eldon Square, Newcastle.
1895 Jan. 30	Forster, William Charlton, 33 Westmorland Road, Newcastle.
1892 April 27	Francis, William, 20 Collingwood Street, Newcastle.
1859 Dec. 7	Gibb, Dr., Westgate Street, Newcastle.
1883 Oct. 31	†Gibson, J. Pattison, Hexham.
1879	Gibson, Thomas George, Lesbury, R.S.O., Northumberland.
1903 Jan. 28	Gibson, William James, Bedlington, R.S.O., Northumberland.
1901 July 31	Gjemre, E. W., Ferndene, Gosforth, Newcastle.
1904 Jan. 27	Glendenning, George H., 114 St. George's Terrace, Newcastle.
1886 June 30	Gooderham, Rev. A., Vicarage, Chillingham, Belford.
1886 Oct. 27	Goodger, C. W. S., 20 Percy Gardens, Tynemouth.
1895 Sept. 25	Gough, Rev. Edward John, D.D., Vicar and Canon of Newcastle.
1894 Aug. 29	Gradon, J. G., Lynton House, Durham.
1886 Aug. 28	Graham, John, Findon Cottage, Sacriston, Durham.
1891 Oct. 28	Greene, Charles R., North Seaton Hall, Newbiggin-by-the-Sea.
1845 June 3	†Greenwell, Rev. William, D.C.L., F.R.S., F.S.A., Hon. F.S.A. Scot. Durham.
1883 Feb. 28	Greenwell, His Honour Judge, Greenwell Ford, Lanchester.
1903 Oct. 26	Gregory, Arthur, 2 Brandling Park, Newcastle.

Date of Election.	
1877 Dec. 5	†Gregory, John Vessey, 10 Framlington Place, Newcastle.
1891 Jan. 28	Haggie, Robert Hood, Blythswood, Osborne Road, Newcastle.
1893 Mar. 8	Hall, Edmund James, Dilston Castle, Corbridge.
1883 Aug. 29	Hall, James, Tynemouth.
1884 Mar. 26	Harrison, Miss Winifred A., 9 Osborne Terrace, Newcastle.
1893 Aug. 30	Hastings, Lord, Melton Constable, Norfolk.
1898 July 29	Haswell, F. R. N., Monkseaton, Whitley, R.S.O., Northumberland.
1889 Feb. 27	*Haverfield, F. J., F.S.A., Christ Church, Oxford.
1901 Mar. 27	Heatley, William Robertson, 4 Linden Villas, Gosforth, Newcastle.
1894 May 30	Hedley, Edward Armorer, Windsor Crescent, Newcastle.
1886 April 28	Hedley, Robert Cecil, Corbridge.
1901 Nov. 27	Henderson, William Frederick, Moorfield, Newcastle.
1902 Jan. 29	Henzell, Charles William, Northumberland Terrace, Tynemouth.
1883 Feb. 28	†Healop, Richard Oliver, M.A., F.S.A., 12 Princes Buildings, Aken-side Hill, Newcastle.
1904 Feb. 24	Higginbottom, Albert H., Simmondley, Adderstone Crescent, Jesmond, Newcastle.
1903 Mar. 25	Hill, M. C., Southend, Newcastle.
1888 April 25	Hindmarsh, William Thomas, Alnbank, Alnwick.
1882	Hodges, Charles Clement, Hexham.
1865 Aug. 2	†Hodgkin, Thomas, D.C.L., F.S.A., Barmoor Castle, Beal, Northumberland.
1895 Jan. 30	Hodgkin, Thomas Edward, Bank, Newcastle.
1899 June 28	Hodgson, George Bryan, Harton, near South Shields.
1890 Jan. 29	†Hodgson, John Crawford, F.S.A., Abbey Cottage, Alnwick.
1884 April 30	Hodgson, John George, Exchange Buildings, Quayside, Newcastle.
1901 Nov. 27	Hodgson, M. N., 11 Myrtle Crescent, South Shields.
1898 Aug. 27	Hodgson, T. Hesketh, F.S.A., Newby Grange, Carlisle.
1887 Jan. 26	Hodgson, William, Westholme, Darlington.
1900 July 25	Hodgson, William George le Fleming Lowther, Dee View, Trevor, Llangollen, N. Wales.
1895 July 31	Hogg, John Robert, North Shields.
1891 Oct. 28	Holmes, Ralph Sheriton, 3 Devonshire Terrace, Newcastle.
1901 Oct. 30	Hopkins, C. W. Innes, the Tower, Ryton.
1892 June 29	Hopper, Charles, Monkend, Croft, Darlington.
1876	Hoyle, William Aubone, The Croft, Ovingham.
1903 Sep. 30	Humble, George, Elswick Grange, Newcastle.
1888 July 25	Hunter, Edward, Wentworth, Gosforth, Newcastle.
1897 Dec. 15	Hutchinson, Edward, The Elms, Darlington.
1886 May 26	†Irving, George, West Fell, Corbridge.
1900 Jan. 31	Jobling, James, Morpeth.
1883 Aug. 29	Johnson, Rev. John, Hutton Rudby Vicarage, Yarm.
1883 Feb. 28	Joicey, Sir James, Bart., M.P., Longhirst, Morpeth.

I THE SOCIETY OF ANTIQUARIES OF NEWCASTLE-UPON-TYNE.

Date of Election.		
1900	Jan. 31	Kitchin, The Very Rev. G. W., Dean of Durham.
1884	Oct. 29	† Knowles, William Henry, F.S.A., 37 Grainger Street, Newcastle.
1901	Feb. 27	Kyle, Robert, 11 Prudhoe Street, Alnwick.
1899	Feb. 22	Lamb, Miss Elizabeth, Newton Cottage, Chathill.
1896	Dec. 23	Lambert, Thomas, Town Hall, Gateshead.
1897	July 8	Laws, Dr. Cuthbert Umfreville, 1 St. George's Terrace, Newcastle.
1904	June 1	Leather, Major G. Towler, Middleton Hall, Belford.
1894	Sept. 26	Leeds Library, The, Commercial Street, Leeds.
1899	Nov. 29	Leeson, Richard John, Bank Chambers, Mosley Street, Newcastle.
1902	May 28	Lemon, Allan Bruce, 48 Pilgrim Street, Newcastle.
1903	Mar. 25	Liberty, Rev. Stephen, M.A., 12 Larkspur Terrace, Newcastle.
1897	Jan. 27	Lightfoot, Miss, 5 Saville Place, Newcastle.
1885	April 29	Liverpool Free Library (P. Cowell, Librarian).
1887	June 29	Lockhart, Henry F., Hexham.
1899	July 26	London Library, c/o Williams & Norgate, Henrietta Street, Covent Garden, London.
1896	Nov. 25	Longstaff, Dr. Geo. Blundell, Highlands, Putney Heath, London, S.W.
1901	Aug. 28	Lowe, Rev. Joseph, Hon. Can. of Newc. and Vicar of Haltwhistle.
1885	Nov. 6	Lynn, J. R. D., Blyth, Northumberland.
1888	June 27	Macarthy, George Eugene, Pilgrim Street, Newcastle.
1902	Oct. 27	McDonald, J. C., 21 Nixon Street, Newcastle.
1877		McDowell, Dr. T. W., East Cottingwood, Morpeth.
1904	April 27	Macfadyen, Frank Edward, 24 Grosvenor Place, Jesmond, Newcastle.
1904	Jan. 27	McMillan, James, 2 Bishopton Street, Sunderland.
1902	Mar. 26	McPherson, John C., Benwell Grange, Newcastle.
1884	Mar. 26	Mackey, Matthew, 36 Highbury, West Jesmond, Newcastle.
1891	May 27	Manchester Reference Library (C. W. Sutton, Librarian).
1899	Aug. 30	Markham, R. M., 9 Eldon Square, Newcastle.
1895	Sept. 25	Marley, Thomas William, Netherlaw, Darlington.
1884	Mar. 26	Marshall, Frank, Claremont House, Newcastle.
1882		Martin, N. H., F.R.S.E., Ravenswood, Low Fell, Gateshead.
1900	Jan. 31	Matheson, Thomas, Morpeth.
1891	Mar. 25	Maudlen, William, Dacre House, North Shields.
1899	June 28	May, George, Simonside Hall, near South Shields.
1888	Sept. 26	Mayo, William Swatling, Riding Mill, Northumberland.
1891	Jan. 28	Melbourne Free Library, c/o Melville, Mullen, and Slade, 12 Ludgate Square, London, E.C.
1898	Mar. 30	Milburn, J. D., Guyzance, Acklington.
1903	July 29	Middleton, Lambert W., Oakwood, Hexham.
1891	Aug. 26	Mitcalfe, John Stanley, Percy Park, Tynemouth.
1904	April 27	Mitchell, Mrs. Charles William, Jesmond Towers, Newcastle.
1883	Mar. 28	Moore, Joseph Mason, Harton, South Shields.

Date of Election.	
1883 May 30	Morrow, T. R., The Cave, Fulford, York.
1883 Oct. 13	Motum, Hill, Town Hall, Newcastle.
1886 Dec. 29	Murray, William, M.D., 9 Ellison Place, Newcastle.
1896 Oct. 27	Neilson, Edward, Avondale, Corbridge.
1883 June 28	Nelson, Ralph, North Bondgate, Bishop Auckland.
1900 May 30	Newbigin, Edward Richmond, 2 Lovaine Place, Newcastle.
1884 July 2	Newcastle Public Library.
1902 Sept. 24	Newton, Robert, Brookfield, Gosforth, Newcastle.
1898 May 25	New York Library, c/o Mr. B. F. Stevens, 4 Trafalgar Square, London, W.C.
1903 Aug. 26	Nisbet, James Thomson, Criffel, Ryton.
1896 May 27	†Nisbet, Robert Sinclair, 8 Grove Street, Newcastle.
1885 May 27	Norman, William, 23 Eldon Place, Newcastle.
1893 Feb. 22	Northbourne, The Right Hon. Lord, Betteshanger, Kent.
1892 Nov. 30	†Northumberland, His Grace The Duke of, K.G., F.S.A., Alnwick Castle, Northumberland.
1901 Feb. 27	Ogilvie, Frank Stanley, Rosella House, North Shields.
1897 Oct. 27	Ogle, Capt. Sir Henry A., bart., R.N., United Service Club, Pall Mall, London.
1898 June 28	*Ogle, Bertram Savile, Hill House, Steeple Aston, Oxon.
1898 June 28	Ogle, Newton, 59 Green Street, Grosvenor Square, London.
1901 June 5	Oliver, Arthur M., West Jesmond Villa, Newcastle.
1901 Oct. 30	Oliver, Robert Charles, Bowmen Bank, Morpeth.
1889 Aug. 28	Oliver, Prof. Thomas, M.D., 7 Ellison Place, Newcastle.
1894 Dec. 19	†Oswald, Joseph, 33 Mosley Street, Newcastle.
1901 Jan. 30	Page, Frederick, M.D., 1 Saville Place, Newcastle.
1889 Aug. 28	Park, A. D., 11 Bigg Market, Newcastle.
1896 Oct. 28	Parker, Miss Ethel, The Elms, Gosforth, Newcastle.
1884 Dec. 30	Parkin, John S., 11 New Square, Lincoln's Inn, London, W.C.
1898 Jan. 26	Peacock, Reginald, 47 West Sunnyside, Sunderland.
1891 Feb. 18	Pease, Howard, B.A., F.S.A., Bank, Newcastle.
1884 Sept. 24	Phillips, Maberly, F.S.A., Pevensey, Bycullah Park, Enfield Middlesex.
1880	Philipson, Sir George Hare, M.D., Eldon Square, Newcastle.
1888 Jan. 25	Plummer, Arthur B., Prior's Terrace, Tynemouth.
1898 Feb. 23	Porteus, Thomas, 41 Park Square, Leeds.
1901 Jan. 30	Pritchett, James Pigott, High Row, Darlington
1880	Proud, John, Bishop Auckland.
1896 Mar. 25	Pybus, Rev. George, Grange Rectory, Jarrow
1882	Pybus, Robert, 42 Mosley Street, Newcastle.
1900 April 25	Radford, H. G., Stonehill, East Sheen.
1887 Aug. 31	Reavell, George, jun., Alnwick.
1883 June 27	Reidpath, Robert, 5 Linden Terrace, Newcastle.

Date of Election.	
1888 May 30	Reed, The Rev. George, Killingworth, Newcastle.
1894 Feb. 28	Reed, Thomas, King Street, South Shields.
1904 April 27	Reid, George Davison, 64 Lovaine Place, Newcastle.
1883 Sept. 26	Reid, William Bruce, Cross House, Upper Claremont, Newcastle.
1891 April 29	Reynolds, C. H., Frederiksgate 72, Copenhagen.
1894 May 30	Reynolds, Rev. G. W., Rector of Elwick Hall, Castle Eden, R.S.O.
1886 Nov. 24	Rich, F. W., Eldon Square, Newcastle.
1891 Jan. 31	Richardson, Miss Alice M., Hollinwood, Torquay.
1891 July 29	Richardson, Frank, Clifton Cottage, Clifton Road, Newcastle.
1895 July 31	Richardson, Mrs. Stansfield, Thornholme, Sunderland.
1898 Jan. 26	Richardson, William, Field Head, Willington, Northumberland.
1892 Mar. 30	Riddell, Edward Francis, Melton Road, Oakham, Rutland.
1889 July 31	Ridley, John Philipson, Bank House, Rothbury.
1877	Ridley, The Right Hon. Viscount, Blagdon, Northumberland.
1901 June 5	Ridley, Thomas W., Willimoteswick, Coatham, Redcar.
1883 Jan. 31	Robinson, Alfred J., 55 Fern Avenue, Newcastle.
1900 Aug. 29	Robinson, Rev. F. G. J., Rector of Castle Eden, R.S.O.
1884 July 30	Robinson, John, Delaval House, 3 Broxbourne Terrace, Sunderland.
1900 Mar. 28	Robinson, John David, Beaconsfield, Coatsworth Road, Gateshead.
1894 Mar. 25	Robson, John Stephenson, Sunnilaw, Claremont Gardens, Newcastle.
1877	Rogers, Rev. Percy, M.A., 17 Pulteney Street, Bath.
1901 Jan. 30	Rudd, Alfred George, Low Middleton Hall, Middleton-one-Row.
1893 April 26	Runciman, Walter, jun., M.A., West Denton Hall, Scotswood, Northumberland.
1892 Sept. 28	Rutherford, Henry Taylor, Ayre's Terrace, South Preston, North Shields.
1891 Dec. 23	Rutherford, John V. W., Briarwood, Jesmond Road, Newcastle.
1887 Jan. 26	Ryott, William Hall, 7 Collingwood Street, Newcastle.
1904 June 1	Sainby, F., Albourn Terrace, West Hartlepool.
1888 July 25	Sanderson, Richard Burdon, Warren House, Belford.
1893 Nov. 29	†Savage, Rev. H. E., Hon. Canon of Durham and Vicar of St. Hild's, South Shields.
1901 Oct. 30	Schofield, Frederick Elsdon, The Retreat, Morpeth.
1891 Sept. 30	Scott, John David, 4 Osborne Terrace, Newcastle.
1886 Feb. 24	Scott, Walter, Grainger Street, Newcastle.
1888 Oct. 31	Simpson, J. B., Bradley Hall, Wylam.
1895 May 29	Simpson, Robert Anthony, East Street, South Shields.
1889 May 29	Sisson, Richard William, Nunthorpe, Jesmond Park East, Newcastle.
1901 Aug. 28	Sisterson, Edward, Woodleyfield, Hexham.
1904 Jan. 27	Skelly, Frederick George, Alnwick.
1898 Mar. 30	Smith, George, Brinkburn, Gosforth, Newcastle.
1891 Nov. 18	Smith, William, Gunnerton, Barrasford.

LIST OF MEMBERS. (1st June 1904.)

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Date of Election.	
1893 Mar. 29	Smith, William Arthur, 71 King Street South Shields.
1883 June 27	South Shields Public Library. Southwell, Rev. Canon, Bishop's Hostel, Grainger Park Road, Newcastle.
1901 Jan. 30	Spain, George R. B., Victoria Square, Newcastle.
1866 Jan. 3	*†Spence, Charles James, South Preston Lodge, North Shields.
1883 Dec. 27	Spencer, J. W., Newbiggin House, Kenton, Newcastle
1882	Stevenson, A. L., Holywell Hall, Durham.
1891 Jan. 28	Steel, The Rev. James, D.D., Vicarage, Heworth.
1882	Stephens, Rev. Thomas, Horsley Vicarage, Otterburn, R.S.O.
1887 Mar. 30	Straker, Joseph Henry, Howdon Dene, Corbridge.
1880	Strangeways, William Nicholas, Lismore, 17 Queen's Avenue, Muswell Hill, London, N.
1897 Jan. 27	Sunderland Public Library.
1879	Swan, Henry F., North Jesmond, Newcastle.
1866 Dec. 5	Swinburne, Sir John, bart., Capheaton, Northumberland.
1900 Aug. 29	Tate, William Thomas, Hill House, Greatham.
1895 Feb. 27	Taylor, Rev. E. J., F.S.A., West Pelton Vicarage, Beamish R.S.O., Co. Durham.
1892 April 27	†Taylor, Thomas, F.S.A., Chipchase Castle, Wark, North Tynedale.
1888 Aug. 29	Thompson, Geo. H., Baileygate, Alnwick.
1899 June 28	Thompson, Mrs. George, The Cottage, Whickham, R.S.O.
1898 Dec. 21	Thompson, John, Cradock House, Cradock Street, Bishop Auckland.
1892 June 29	Thomson, James, jun., 22 Wentworth Place, Newcastle.
1902 Feb. 26	Thorburn, H. W., Cradock Villa, Bishop Auckland.
1888 Oct. 31	Todd, J. Stanley, Percy Park, Tynemouth.
1888 Nov. 28	†Tomlinson, William Weaver, Lille Villa, The Avenue, Monkseaton.
1894 Mar. 28	Toovey, Alfred F., 28 Burdon Terrace, Newcastle.
1897 April 28	Toronto Public Library, c/o C. B. Cazenove & Sons, Agents, 26 Henrietta Street, Covent Garden, London, W.C.
1900 Oct. 31	*Trinity College Library, Dublin.
1900 May 25	Turnbull William, Whin Bank, Rothbury.
1904 April 27	Turner, G. Grey, F.R.C.S., 31 Oxford Street, Newcastle.
1903 Feb. 25	Tynemouth Public Library, North Shields.
1889 Oct. 30	Vick, R. W., Highnam, West Hartlepool.
1901 Jan. 30	Waddilove, George, Brunton, Wall, North Tyne.
1891 Mar. 25	†Walker, The Rev. John. Whalton Rectory, Newcastle.
1896 Nov. 25	Walker, John Duguid, Osborne Road, Newcastle.
1896 Oct. 28	Wallis, Arthur Bertram Ridley, B.C.L., 3 Gray's Inn Sq., London.
1892 Oct. 26	Watson, Mrs. M. E., Burnopfield.
1887 Jan. 26	Watson, Thomas Carrick, 21 Blckett Street, Newcastle.
1895 May 29	Weddell, George, 20 Grainger Street, Newcastle.
1879 Mar. 26	†Welford, Richard, Thornfield Villa, Gosforth, Newcastle.

<sup>1</sup> Elected originally Jan. 31, 1876, resigned 1887.

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Date of Election.	
1902 Oct. 27	White, Conrad, Kensington Terrace, Newcastle.
1898 Oct. 26	White, R. S., Shirley, Adderston Crescent, Jesmond, Newcastle.
1902 Jan. 29	Whiting, Rev. E. C., St. James's Rectory, Gateshead.
1886 June 30	Wilkinson. Auburn, M.D., 14 Front Street, Tynemouth.
1893 Aug. 30	Wilkinson, William C., Dacre Street, Morpeth.
1896 May 27	Williams, Charles, Glencarn, Monkseaton.
1903 Aug. 26	Williams, Miss Ethel Mary Neucella, M.D., 19 Ellison Place, Newcastle.
1891 Aug. 26	Williamson, Thomas, jun., Lovaine House, North Shields.
1897 Sept. 29	Willyams, H. J., Barndale Cottage, Alnwick.
1885 May 27	Wilson, John, Archbold House, Newcastle.
1898 May 25	Windley, Rev. H. C., St. Chad's, Bensham, Gateshead.
1891 Sept. 30	Winter, John Martin, 17 Percy Gardens, Tynemouth.
1896 Feb. 26	Wood, Herbert Maxwell, 66 John Street, Sunderland.
1898 Nov. 30	Wood, C. W., Beach Road, South Shields.
1899 Nov. 29	Wood, William Henry, 38 Eldon Street, Newcastle.
1898 April 27	Wooler, Edward, Danesmoor, Darlington.
1897 Oct. 27	Worsdell, Wilson, Gateshead.
1886 Nov. 24	Wright, Joseph, jun., 7 St. Mary's Place, Newcastle.
1894 Oct. 31	Young, Hugh W., F.S.A. Scot., Tortola, Nairn, N.B.

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- Antiquaries of London, Society of, Burlington House, London.
- Antiquaries of Scotland, Society of, Museum, Edinburgh.
- Royal Archaeological Institute of Great Britain and Ireland, 20 Hanover Square, London, W.
- Royal Irish Academy, Dublin.
- Royal Society of Antiquaries of Ireland, 7 St. Stephen's Green, Dublin.
- Royal Society of Ireland, Dublin.
- Royal Society of Northern Antiquaries of Copenhagen.
- Royal Academy of History and Antiquities, Stockholm, Sweden.
- Royal Society of Norway, Christiania, Norway.
- Aberdeen Ecclesiological Society, 42 Union Street, Aberdeen.
- Berwickshire Naturalists' Club, Museum, Berwick.
- Bristol and Gloucester Archaeological Society, c/o Secretary, The Rev. W. Bazeley, Matson Rectory, Gloucester.
- British Archaeological Association, (Secretaries, George Patrick and Rev. H. J. Dukinfield Astley), 1 Gresham Buildings, Basinghall Street, London, E.C.
- Cambrian Antiquarian Society, c/o J. Romilly Allen, F.S.A., 28 Great Ormond Street, London, W.C.
- Cambridge Antiquarian Society, c/o Secretary, T. D. Atkinson, St. Mary's Passage, Cambridge.

- Canadian Institute of Toronto.  
 Clifton Antiquarian Club, c/o Alfred E. Hudd, 94 Pembroke Road, Clifton,  
 Bristol.  
 Cumberland and Westmorland Antiquarian and Archaeological Society,  
 Tullie House, Carlisle.  
 Derbyshire Archaeological Society, Market Place, Derby.  
 Heidelberg Historical and Philosophical Society, Heidelberg, Germany.  
 Huguenot Society, c/o Reg. S. Faber, Secretary, 90 Regent's Park Road,  
 London, N.W.  
 Kent Archaeological Society, Maidstone, Kent.  
 Lancashire and Cheshire Historic Society, c/o G. F. Shaw, The Athenæum,  
 Church Street, Liverpool.  
 Literary and Scientific Society, Christiania, Norway.  
 London and Middlesex Archaeological Society, London Institution, Fins-  
 bury Circus, London.  
 Nassau Association for the Study of Archaeology and History, (Verein für  
 nassauische Alterthumskunde und Geschichte), Wiesbaden, Germany.  
 Numismatic Society of London, (Secretaries, H. A. Grueber and B. V. Head),  
 22 Albemarle Street, London, W.  
 Peabody Museum, The Trustees of the, Harvard University, U.S.A.  
 Powys-land Club, c/o Secretary, T. Simpson Jones, M.A., Gungrog, Welsh-  
 pool.  
 Shropshire Archaeological and Natural History Society, Shrewsbury.  
 Smithsonian Institution, Washington, U.S.A.  
 Société d'Archéologie de Bruxelles, rue Ravenstein 11, Bruxelles.  
 Société d'Archéologie de Namur, Namur, Belgium.  
 Société d'Emulation d'Abbeville, France.  
 Somersetshire Archaeological and Natural History Society, The Castle, Taunton,  
 Somersetshire.  
 Suffolk Institute of Archaeology and Natural History, Millhill, Woodbridge.  
 Surrey Archaeological Society, Castle Arch, Guildford.  
 Sussex Archaeological Society, The Castle, Lewes, Sussex.  
 Thuringian Historical and Archaeological Society, Jena, Germany.  
 Trier Archaeological Society, Trier, Germany.  
 Yorkshire Archaeological Society, 10 Park Street, Leeds.

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The *Proceedings* of the Society are sent to the following :—

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 The Rev. J. F. Hodgson, Witton-le-Wear, R.S.O., co. Durham.  
 T. M. Fallow, Coatham, Redcar.



At the Annual Meeting of the Society, on the 27th day of January, 1904, Statute X. was amended to read as follows:—

‘X.—The Council shall be entrusted with the duty and charge of selecting and illustrating papers for the publications of the Society (other than the *Proceedings*); and that no paper be printed at the Society’s expense before it be read in whole or in part at a meeting; and that no paper which has been printed elsewhere be read at any meeting unless it be first submitted to the Council at a meeting of the Council, or printed in the Society’s transactions except at the request of the Council. A complete illustrated volume of *Archaeologia*, bound in cloth or buckram, shall be issued to members in June of each year, such volume to be in addition to the monthly issue of the *Proceedings*, and the annual report, list of members, etc.’

# ARCHAEOLOGIA AELIANA.

## I.—EARLY ORDNANCE IN EUROPE.

BY R. COLTMAN CLEPHAN, F.S.A., F.S.A.Scot., V.P.

[Read on the 27th August, 1902.]

THESE notes have been written with a view of subjecting the early records concerning ordnance to some examination, as well as to collate them, and to trace the development of the new artillery through the more rudimentary stages of its career. Trustworthy evidence concerning it is rare until the second half of the fourteenth century is reached. It is not proposed to carry these remarks beyond the end of the sixteenth century, except in a few cases for the purpose of comparison.

The introduction of cannon<sup>1</sup> may be said to have inaugurated a new era in the relative forces at command for attack and defence, and it ultimately caused the entire scheme of fortification in the countries of chivalry to be recast, besides bringing about great changes in tactics in the field. It may, however, be remarked that, during the incipient stages, ordnance by no means took the first place among the military engines of medieval times, and, indeed, the effect produced was one more calculated to alarm than to cause any very serious damage; but cannon were invested with superstitious terrors, which often resulted in the surrender of strong places to an inferior force.

There is great uncertainty as to the date of the earliest application of an explosive powder as the motive force for the discharge of missiles from a hollow tube, which would, however, appear to have taken place about 1320 A.D., or perhaps some years earlier, near which time it is often stated that Bartholdus Schwarz, an Augustinian monk, an alchemist, of Freiburg in Breisgau, made a fortuitous discovery of a detonating mixture, but this legend, of which there are several versions, may be dismissed as absolutely untrustworthy, though the suggestion made by various writers that his

<sup>1</sup> The word is derived from the Latin *canna*, a reed or tube.

experiments resulted in the invention of the mortar<sup>2</sup> is not so improbable. We are in possession of evidence that ordnance was in use not long after the legendary discovery by Schwarz, and it is clearly recorded by the clerk or keeper of the king's privy wardrobe at the Tower that gunpowder was being made for Edward III. by Thomas de Roldeston in 1344, but we must go much farther back than to 1320 for the date of its invention.

It is unprofitable to discuss the various speculations indulged in by many writers as to a supposed knowledge by the ancient Greeks and Romans, or by the Chinese, of any explosive compound of the nature of gunpowder, but firmer ground is reached when allusion is made to one of the mixtures given in a MS., dated 846 A.D., written by Marcus Græcus, who evidently contemplated its use as a military agent. The MS. runs:—*Incipit Liber Ignium a Marco Grasco prescriptus, cujus virtus et efficacia est ad comburendum hostes, tam in mari quam in terra*, etc.<sup>3</sup> This compound contains six parts of saltpetre, one of sulphur, and two of charcoal, which is really what is now known as gunpowder, and, furthermore, it is a much stronger combination than that used for cannon during the fourteenth and fifteenth centuries, and even much later. There are repetitions of this recipe mentioned in the thirteenth century by Albertus Magnus,<sup>4</sup> by Ferrarius,<sup>5</sup> and by Roger Bacon. All this is suggestive of the possibility that there may have been far earlier attempts at cannon-making than is generally supposed, and, if so, the first experiments, European at all events, were probably made in Italy. The subject of gunpowder is treated more fully later in these notes.

A weapon for discharging 'Greek fire' is described by the Byzantine princess, Anna Comnena<sup>6</sup> as 'tubes fixed on the prows of the emperor's galleys,' but the mixture employed was composed, she states, of bitumen, sulphur and naphtha, thus not possessing the explosive properties of gunpowder, or at all events not to any great extent, and one cannot

<sup>2</sup> The word, as applied to a form of cannon, may have been derived from the pounding vessel of the name.

<sup>3</sup> In the National Library at Paris.

<sup>4</sup> In *De Mirabilibus Mundi* of Albertus Magnus, bishop of Ratisbon.

<sup>5</sup> The MS. is in the Bodleian Library, and considered to be of the time of Edward I.

<sup>6</sup> *Alexiad*, book ii.

imagine how this form of Greek fire was projected from the tube so as to be effective in action. The composition, enclosed in a barrel, with a lighted match attached, and hurled by an engine into a town or other fortified place for the purpose of setting the buildings in flames, was probably a similar mixture, perhaps with the addition of resin.<sup>7</sup> The Byzantine tubes, used on the emperor's galleys, were decorated on the surface with the heads of fabulous animals, and this custom may possibly have given rise to the many legends in romantic literature of encounters between knights errant and fiery dragons belching forth sulphurous flames, etc. A statement is made in an Arabian treatise of the thirteenth century, preserved, I believe, in the Escorial, written by Hassân Abrammah, that Greek fire was used in globes or vessels made of pottery or glass. The mixture thus employed would seem to have been explosive in character, and to have foreshadowed the grenade of later times.

It is uncertain whether the statements made that ordnance, in the sense of the hurling of projectiles, was in use by the Moors and Spaniards in the early years of the fourteenth century have any foundation in fact, nevertheless it is far from being improbable that these peoples were acquainted with an explosive mixture at that time, and used it, too, in the manner described.

John Anderne, an eminent surgeon living in the reign of Edward III., in his treatise, *Practica*, makes a clear distinction between '*Fewes Grégois*' and '*Fewe Volant*,' the latter being what is known as gunpowder, showing that both compounds were employed in warfare, *temp.* Edward III. Froissart makes the same distinction, though less clearly, and a passage in his work concerning the siege of Romorentin, on the Sandre, obviously refers to Greek fire having been used there, and with cannon. Monstrelet, who fills the gap between Froissart and Philip de Comines, makes mention of '*bastons à pouldre*' and '*à feu*.'

It is reported that the city of Ghent was in possession of ordnance, *anno* 1313, a date somewhat anterior to the legendary discovery by Schwarz; and that the magistrates of the town gave to their ambassadors going to England *bussen met kruyt* or *donderbussen*;

<sup>7</sup> The treatise *Du Feu Grégois*, by MM. Reinand and Favé, gives much information concerning Greek fire.

but this statement, made in a work published in 1843,<sup>8</sup> has not been authenticated, and the city archives have been searched since with a view to finding the passage, but without success. It is incredible, however, that a statement so precise as this, made by a writer of repute, could be a pure invention, and really there is no reason for doubting his good faith. The use of ordnance was known in Italy at least as early as 1324-1326, for the archives of Florence of that time furnish a reference to it, occurring in a decree of the Senate, instructing the Gonfaloniere and Council of Twelve to have cannon and balls of iron made for the defence of the state, which evidence would rather point to the new artillery having been in existence somewhat before, and, though proof is lacking, it seems in every way probable that in 1320, if not earlier, most, if not all, of the important states in Europe were in possession of ordnance. The Florence record has been preserved and is often copied : it is printed in *Etudes sur le Passé et l'Avenir de l'Artillerie*.<sup>9</sup>

Colonel L. Robert, Conservateur du Musée d'Artillerie, at Paris, states in his introduction to the *museum catalogue* that the town of Metz made use of two small cannon in 1324 when besieged by the combined forces of the archbishop of Treves, the Comte de Bar and the king of Bohemia, but there is no reference.

Ordnance was undoubtedly employed by the English in the fourth decade of the century.

John Barbour, archdeacon of Aberdeen, in his metrical life of king Robert Bruce, written in 1375, states that 'crakys of war' were employed by Edward III. when invading Scotland in the first year of his reign (1327) :—

' The other crakys were of war  
That they before never heard sir,'

and that these 'crakys' meant cannon is obvious from another couplet in the same poem, referring to the Scottish army—

' Bot gynnys for crakys had he nane,  
For in Scotland yeit than but wane  
The uss of thaim had not bene sene.'

Barbour was probably about seven years old when this invasion took place, so the statement must be taken for what it is worth.

<sup>8</sup> Reynard, *Trésor national*, t. ii. p. 35, Liège, 1843.

<sup>9</sup> By the emperor Napoleon III., t. iii. p. 72.

Edward is said to have had ordnance with him at the siege of Berwick in 1333,<sup>10</sup> and the French fleet, in its attack on Southampton five years later, was supplied with the new artillery.<sup>11</sup> Another early instance of the presence of cannon on warships is given in an indenture between John Starlyng and Helmyng Leget, dated 1338, which mentions ordnance as forming part of the equipment of the 'Barnard de la Tour,' 'ij cannons de ferr, sanz estuff.'<sup>12</sup> A brass cannon is scheduled in the same document for 'La Marie de la Tour,' showing that, even at this early date, guns were provided with more than one movable chamber or breech block. Walsingham, describing the defeat of the French fleet, which took place off Sluys, in 1340, says there were 'Gunnæ plures, cum magna quant' pulveris,' etc. Up to the time of the introduction of cannon, or rather somewhat later, when ordnance had made some progress in power and efficiency, for very early pieces could not breach a wall, the defence of fortified places had for a long time proved stronger than the means available for attack, which then lay in mining and the employment of mechanical engines and war-sheds, with the bore and battering-ram. These agencies were often ineffectual for the reduction of fortified places, however strongly invested, and it was famine alone that could bring about a capitulation. After having passed through its preliminary stages, say by the year 1375, cannon obtained command simultaneously over the concentric lines of defence, such fortifications having been constructed with a view to the withstanding of quite another and more gradual mode of assault, and a breech in the walls could be effected by the new artillery from some distance, so that the attacking force was not so much exposed as hitherto, to be driven from their lodgments, and to be harassed by the numerous means of offence and annoyance resorted to from the battlements for the checkmating of mining, the destruction of war-sheds, and missile-casting engines, and the catching of the head of the ram in a sort of vice or fork, to prevent that engine from being drawn back again for another stroke. It became necessary therefore to mount cannon on the walls of fortresses in order to check

<sup>10</sup> *Proceedings of the Royal Artillery Institution*, vol. ii. page 340.

<sup>11</sup> M. Léon Lacabane in *Bibliothèque de l'Ecole des Chartes*, vol. i (second series), page 51.

<sup>12</sup> Given by sir Nicholas Harris Nicolas, G.C.M.G., in his *History of the Royal Navy*, London, 1847.

the besiegers' fire, to batter down his entrenchments, and to destroy his stores and magazines, but the buildings, the walls of which were narrow, had not been built strongly and massively enough for sustaining the heavy shock arising from the concussion in firing, and from the effects of the recoil of the rude and elementary guns then available. The effect of this was that these walls were greatly injured by their discharge ; indeed, it sometimes happened that more harm was experienced by the garrison within the fortress than that inflicted on the besieging force without. Firing had to be discontinued, and when the besiegers' cannon could no longer be replied to, especially when covering and supporting the movements of the attacking columns on the day of assault, a surrender became imperative, or a successful *coup-de-main* resulted in the reduction of the fortress. In fact, by the end of the third quarter of the fourteenth century, the assault had the advantage over the defence.

An item in the accounts of the French War Treasurer of 1388, a MS. formerly in the National Library at Paris, cited by Père Daniel and by Ducange,<sup>13</sup> runs :—' A Henri de Faumechon pour avoir poudres et autres choses necessaires aux canons, qui estoient devant Puy Guillaume.'<sup>14</sup> This document has disappeared, but no doubt is cast on Ducange's statement that he made extracts from it.

In the same year a contemporaneous manuscript, now in the Paris Library, and cited by M. Léon Lacabane, states that among the military stores then in the arsenal at Rouen, was a 'pot de fer' for discharging bolts<sup>15</sup>; and sulphur and saltpetre, to make powder for the same, are mentioned.

A year later a parchment, found among the sealed title-deeds of Clairambault,<sup>16</sup> states that the Seigneur de Cardilhac et de Bieule, received from the master of the 'Arbalétriers' of the town of Cambrai 'ten cannon, five of iron and five of metal,'<sup>17</sup> for the defence of the town, and, to make powder for these pieces, eleven livres, four sols and three deniers, were expended in the purchase of saltpetre and sulphur. These weapons were employed when the town was besieged somewhat later.<sup>18</sup>

<sup>13</sup> *Glossarium, Bombarda.*

<sup>14</sup> A castle in Auvergne.

<sup>15</sup> 'Carreaux' or 'garros,' winged arrows or quarrels.

<sup>16</sup> M. Léon Lacabane, *Bibl. de l'Ecole des Chartes*, vol. vi. p. 51.

<sup>17</sup> The brass cannon is 'canon de métal.' <sup>18</sup> Johnes's *Froissart*, vol. i. page 145.

Again, in 1339 reference is made in the archives of Bruges to *nieuwen enginen die men heest ibande*.<sup>19</sup> Cannon are first mentioned by Froissart as having been used in the defence of Quesnoy in 1340, 'those of Quesnoy let them hear their cannon,' when *carreaux* of iron were the missiles employed<sup>20</sup>; and at the siege of Vannes in 1343 both the besieged and the attacking English had artillery.<sup>21</sup> Froissart also refers to a cannon at the siege of Oudenarde, 'the noise of its discharge could be heard five leagues away during the day and double this distance at night.' This piece is supposed by Captain Favé, and others, to have been the *Dulle Griete*, a very large bombard, still preserved at Ghent, but the cannon in question dates from a considerably later period, as will be shown in a special reference later. Edward III. had certainly a large siege train before Calais; and it was probably provided by Peter of Bruges; for the communal accounts of the town of Tournay state that in 1346 Pierre de Bruges made cannon of iron for England, which were tested at Tournay. This master is mentioned in one of the accounts of Egmond de la Béche, as being master armourer to king Edward III. in 1335.

A document of 1348 is given by the emperor Napoleon III. in *Etudes sur le Passé et l'Avenir de l'Artillerie*,<sup>22</sup> in which wedges covered with leather are mentioned, '11<sup>c</sup> cavillis pro eisdem canonibus munitis de trachis.' These are the wedges for fixing the charge in the chamber.

In the Pipe Rolls of the Exchequer of 1351 is an account of the receipts and outgoings between the years 1344 and 1351,<sup>23</sup> and among the entries occur: *Gunnis cum sagittis et pelletis; gunnis cum pelletis et pulvere pro eisdem gunnis; x gunnis cum telar; vj pecie plumbi; v barelli pulveris, et c magn' pelot plumbi, pro eisdem gunnis*. These entries, it will be observed, include cannon with powder and shot, leaden balls, some of them large,<sup>24</sup> and also darts.<sup>25</sup>

The meaning of the word *telar* has been variously interpreted. It occurs also in the inventory of the effects of Roger Mortimer,

<sup>19</sup> Comptes comm. de Bruges, 1340.

<sup>20</sup> Johnes's *Froissart*, vol. i. p. 190.

<sup>21</sup> *Ibid.* vol. ii. p. 29.

<sup>22</sup> *Tome* iii. p. 80.

<sup>23</sup> Given in the *Archaeological Journal*, vol. xix. p. 70.

<sup>24</sup> Probably relatively large only.

<sup>25</sup> *Carreaux*.



taken in 1322 : *ijj talar pro balistis* ; and again in the accounts of the Constable of Dover castle of 1361 : *xxiv arc de corn saunz teilers*,<sup>26</sup> and in another account : *xxiv arcus pro balistis sine tellur*. Here the word may refer to the stocks of crossbows, or to the stands for mechanical engines of war, for I remember seeing the word used in what might be either sense, in connexion with handguns, but I am sorry I have lost or mislaid the reference. In Suffolk, according to Moor's *Glossary*, the stock of a farm shovel is still called a *tiller*, and in accounts of the fourteenth century nails and pins are mentioned in connexion with the word. The expression *ars telaria* was sometimes used as a general designation for shooting with bows and other mechanical engines of war. Napoleon, in *Etudes*,<sup>27</sup> gives the following item from a Bologne inventory of the year 1381 : *Tres telarios novos non fulcitos a bombardis*, which would indicate that these *telaria* were intended to support bombards. Lieut. Brackenbury, R.A., F.S.A., in his notes on *Ancient Cannon*, makes the following remark concerning *telaria*. 'These were clearly and unmistakably the beds or supports in which bombards were partly embedded, and not, as some antiquarians think, the handles of the guns.' Some of these *telarios* are mentioned in the inventory referred to as being worn out and useless and not attached to bombards. Brackenbury quotes from another Bologna inventory (1397), also given in the *Etudes*, when three cannon, two of which were in one *telarium*, and one, like a bombard, without a *telarium*. In the entry *corrigiis, telariis et canonibus*, the first two words are translated in the *Etudes*, *affûts courbés*, while Brackenbury is of opinion that *corrigiis* refer to the iron bands used to fasten the bombard on to its stand ; but the bands were not necessarily of iron, as shown in fig. B ; and the equivalent of *corigio* is to bind with thongs. Bands of iron round large guns would be soon ruptured by the force of the recoil of the piece.

In 1377 Thomas Norwich was directed by king Richard II. to provide 'two great and two less engines called cannon to be sent to the castle at Brest, [Bristol ?].'<sup>28</sup>

<sup>26</sup> The document is given in the *Archaeological Journal*, vol. xi.

<sup>27</sup> *Tome i. p. 358.*

<sup>28</sup> The MS. is given by Rymer.

Until 1776 there was a very large iron cannon, of great length, stated as being inscribed with the year 1354, lying at the fort at Margate<sup>29</sup>; but the date given is in all probability wrong, as there is no other mention of any very large cannon anything like so early. An inventory of the stores at 'Baynard' castle in 1388 includes the item *j petit gonne de feer*. These instances given are sufficient for establishing the approximate date of the introduction of the new artillery in Europe, and will have given some idea of the general employment of cannon at sieges and on ships in the fourteenth century.

Artillery was first employed in assaults on castles and towns, and it is many years before we hear of it being used for field purposes; the earliest mention in this sense, excepting the very doubtful one of Crécy, is, I believe, on the occasion of an engagement before the walls of Bruges, between the forces of that city and those of Ghent, in 1382. These were small pieces, probably discharging cannon arrows (carreaux); several guns together mounted on a wheeled carriage. They are mentioned by Froissart, and are called ribandeaux (ribandequin), after the mechanical engine of the name, discharging darts. A fuller account of these early guns, on a carriage, follows later. The statements made by Giovanni Villani, a Florentine historian, born in Florence in 1280, who wrote very shortly after the battle of Crécy,<sup>30</sup> and by the *Grandes Chroniques de France*,<sup>31</sup> assertions which have been often repeated, that ordnance was employed in that engagement, from the side of the English, are open to considerable question; but there is no inherent improbability that this was the case. Certain it is, however, that cannon played no very important or decisive part in the warlike operations of that time (1346). An argument much relied on by some writers as demonstrating the improbability, nay impossibility, of artillery having been used by the English at Crécy, is that their army made forced marches, and could not hamper its military train with heavy guns, then, as far as is known, without wheels of any kind, but there is every reason to believe that the guns

<sup>29</sup> *Archæologia*, vol. v. p. 156.

<sup>30</sup> He died of the plague shortly afterwards.

<sup>31</sup> There is no knowledge as to who wrote the *Grandes Chroniques*.

of that day, far from being heavy and unwieldy as is often supposed, were really small and easily transportable. It is very likely that the English forces, marching on Creçy, carried guns and other military engines with them for the purpose of assaulting strong places *en route*. We know that the troops, led by sir John Chandos, had cannon, transported on carts with its military train, in 1369 ; on which occasion it was, as Froissart tells us, to besiege Montsac. Demmin gives a drawing in his book of a cannon 'from the field of Creçy' ; but he adduces no evidence that it ever was there, indeed the piece he reproduces would appear to be of a somewhat later date. Such loose statements are to be deprecated. Perhaps the strongest argument against them lies in the fact that Froissart makes no mention of ordnance in connexion with any battles in the field ; and such a new departure would hardly have passed unrecorded by so careful a historian had it really happened, but in estimating the value of his evidence it must be borne in mind that this portion of the *Chronicles* was written from hearsay for he was only nine years old when the battle was fought, while Villani was a man of mature years at the time, and unlikely to have made such a precise statement without foundation. Froissart frequently alludes to the employment of cannon at sieges and on warships, and gives a circumstantial account of the battle of Creçy ; attributing the victory of the English to excellent shooting with the longbow.

Mr. Grose in his *Military Antiquities respecting a History of the English Army*,<sup>32</sup> quotes from a contemporary account giving the detailed forces and the pay of the several grades and bands composing the English forces in Normandy and before Calais, and both gunners and artillerymen<sup>33</sup> are mentioned. The latter class would seem to have had charge of the mechanical engines. As late as 1559, bows are scheduled in a *Tower Survey*, under the heading of *Artillery* ; while all cannon mentioned in the inventory go under that of *Ordnance*. It is thought by some that the word artillery is derived from *Ars telaria*, an expression just referred to in connexion with the word 'tellur.' Valturius calls both mechanical engines and ordnance 'ballistae,' and a Brussels bowmaker, of the year 1400, was styled *Jean l'Artilleur*.

<sup>32</sup> Vol. i. p. 278.

<sup>33</sup> *Ingyners, Artellers and Gonners*.—Harl. 782, fol. 63.

Mr. Joseph Hunter, F.S.A., in his notes *On the early use of Gunpowder in England*,<sup>34</sup> mentions that in 1369 the store of ordnance at Calais consisted of fifteen guns, 995 pounds of saltpetre, 1,298 pounds of quick sulphur, three great guns of brass and one of iron, 224 balls of lead, and 84 pounds of gunpowder.

Ordnance was by no means universally popular among the military authorities of the day, until long after its introduction; and Froissart does not seem to have attached special importance to its use, any more than to other warlike engines before the big siege bombards came into vogue. Mechanical engines, such as the mangonel, ribaudequin, bricolle, perrières, and the trébuchet (trebuket), machines to which the principles of tension, torsion and counterpoise were applied, were used, side by side, with cannon in the fifteenth century, but by that time the estimation of the relative importance of such machines in warfare, as compared with ordnance, prevailing until the last quarter of the fourteenth century, began to be reversed as cannon became more powerful and efficient in action; and the great advantages of a much lower trajectory than the great mechanical engines possessed began to be appreciated. The trebuket threw as heavy a stone as a big bombard; but neither with the same velocity nor anything like so horizontally. This machine was, thus, far from being so effective as cannon for breeching a wall. Claude Fauchet, writing as late as *anno* 1600, says, 'that cannon were only used by cowardly people, and that valiant knights did not approve of them.'<sup>35</sup>

The great cost of materials must have retarded the employment of ordnance on a large scale; indeed it was almost prohibitive. Ordinary iron was 5d. to 6d. per pound; gun-metal 20d.; lead 10d.<sup>36</sup>; and when one considers the great difference in the value of money at that time from the present, one wonders how ordnance could be used at all extensively.

A book published in 1699<sup>37</sup> says: 'The king of England, at the battle of Agincourt, placed some pieces of cannon on an eminence,

<sup>34</sup> *Archæologia*, vol. xxxii. p. 384.

<sup>35</sup> *Origines des Chevaliers, Armoiries, etc.*, Paris, 1600, p. 57.

<sup>36</sup> *Proc. of R. A. Institution*, vol. v. p. 11.

<sup>37</sup> *The History of M. de Boucicaut*.

which did not kill many men but threw a panic into the French army, who were absolutely strangers to it;’ and in Nicolas’s *Agincourt* it is stated that artillery was engaged in the battle. Whether this be true or not, we do not hear much, if anything, of field guns in England before the Wars of the Roses, and abroad in the campaigns of Charles the Bold, of Burgundy.

Gun factories are stated to have been in operation in France in 1345; the accounts of Cahors of that year mention cannon that were being cast.<sup>38</sup> The archives of Bruges state that Peter of Bruges cast a small brass cannon for two pound leaden balls in 1346. Switzerland was casting at Bale in 1372; Venice in 1376; and in 1372, bronze cannon were being cast at Augsburg by Johann von Arau. Malines had a *Meester van den dond’bussen*, in 1365<sup>39</sup>; and in 1369 Arras had thirty-eight cannon in her arsenal. In 1358, Laon was in possession of twelve cannon, and was ordering forty-three more; and in 1368 Guillaume l’Esquier was *Maistre des canons du roy*,<sup>40</sup> up to which time the ordnance was under the charge of *le maistre des arballestriers*. In 1375, Bernart de Montserrat was *maistre des canons*, and superintending the construction of a large gun at Caen weighing more than 2,000 pounds.<sup>41</sup> He was also casting very small brass cannon at Caen that year.<sup>42</sup>

The first expressions employed in medieval literature to denote ordnance, then mostly small breech-loading pieces, are *canon* and *gunnis*; *gonnes* being the English name, and *canon* the French, the medieval Latin equivalent is *cannonnes*. The word *bombard* came into general use for the large muzzle-loading, stone-throwing pieces, and appears about the close of the third quarter of the fourteenth century, but many chroniclers have the confusing habit of using the designation very much in a general sense. Froissart mentions ‘*canons and bombardes*’ in his account of the siege of Quesnoy in 1340, but he was only three years old at the time, and did not begin his chronicles until sixteen years later. Villani mentions ‘*gunnis and bombards*,’ about 1347, so we may perhaps assume that the latter term was applied to the larger guns in Italy then, but the word does not occur

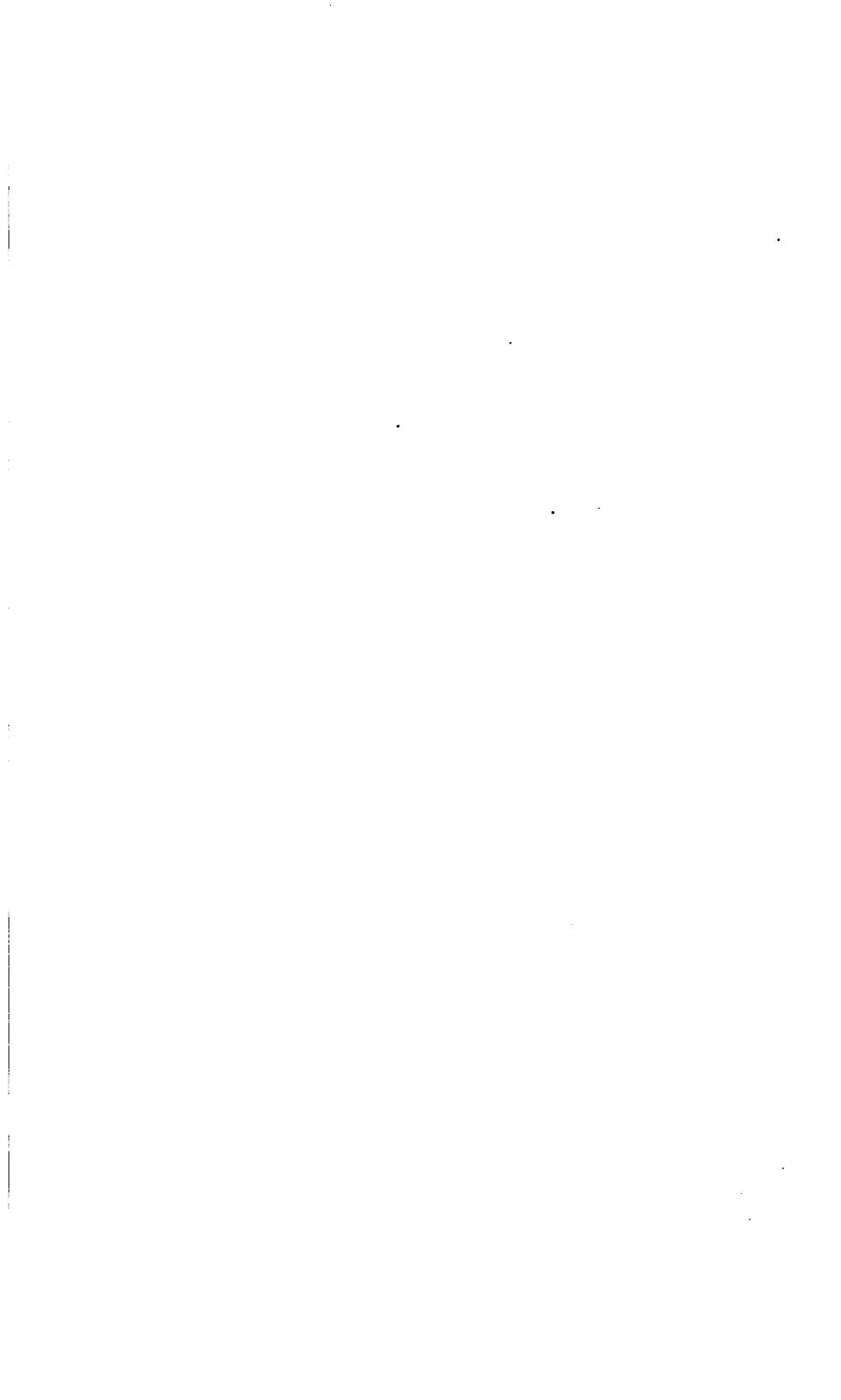
<sup>38</sup> *Proc. R.A. Institution*, vol. iv. p. 297.

<sup>39</sup> *Comptes comm. de Malines*.

<sup>41</sup> *Etudes*, etc.

<sup>40</sup> Ducange.

<sup>42</sup> *Ibid.*



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Plate 01.

Arch. Aet. vol. xxiv. ; to face p. 13.



J. P. Gibson, Photo.

MUCKLEBANK WALL TURRET AND WALLTOWN CRAGS.

in any French contemporary account before 1381. It is clear that towards the end of the fourteenth century, when new varieties of ordnance began to appear, and names had to be found for them, the word *bombard* was specially applied to the description of cannon I have mentioned. In the *Artillery Accounts* of Burgundy, of the first half of the fifteenth century, the terms *grosses bombardes* and *grand canon* are used synonymously.

The craft of gunmaking in the fourteenth century was necessarily experimental, and practised at a time when the mechanical arts were at a very low ebb, and this was especially the case in regard to England, which country, however, does not seem at this time to have made any of her own ordnance.

Towards the close of the century, great improvements were made in France, Italy and Flanders, in the casting of brass guns. The earliest ordnance was of the crudest description, being dilatory and uncertain in action, and dangerous to the gunners. The tube was of equal thickness throughout, and a sort of box, for the charge, was joined on to it, and the whole piece required washing out after each discharge.

The information is scanty among contemporary English records, as to the descriptions and sizes of guns available in England, from, say, 1335 to 1370, but we may conclude that they were mainly small pieces, without trunnions, for the discharge of winged-arrows or quarrels, similar to those already in use for such mechanical engines as *espringales* and *ribaudeaux*,<sup>43</sup> and by leaden balls. The 'large' cannon often referred to in chronicles, indentures, royal wardrobe and other accounts, of a like nature, would appear to have been relatively large only, for a 'great' gun, costing but twenty shillings,<sup>44</sup> could not have been very big, taking into account the cost of materials and making every allowance for the difference in money value at the time; and a variety of other items in these accounts, such as the amounts expended on materials for making gunpowder, with the quantities to be used for certain cannon in war time, and the *personnel* employed in transporting and serving them; all tend to the conclusion that early

<sup>43</sup> *Roman and Medieval Military Engines*, by the writer, *Archæologia Aeliana*, vol. xxiv.

<sup>44</sup> *King's Wardrobe Account*, 1370, printed in *Archæologia*, vol. xxxii. p. 386.



cannon were very small pieces, no bigger than the *harquebuse à crock*, of later times. Really large guns, however, became quite common, after 1377, and an account of the town of Lille of 1382, mentions a bombard as costing an amount, in our currency, equal to £20. Some of the English accounts disclose the curious fact that cannon were sometimes owned by private persons, and hired by the king when wanted.<sup>45</sup>

With every change of the governor of a fortress, commissioners were appointed under the Great Seal, to take an inventory of all the warlike stores contained therein, which was attached to the indenture, and it is from documents of this nature that a mass of data has been drawn.



FIG. A.

Fig. A gives a representation of a cannon, used at the siege of Tunis, *anno* 1390.<sup>46</sup> It lies on wooden supports, with a strong piece at the breech end, for sustaining the recoil, and is being fired *point-blank*,<sup>47</sup> though the drawing is inaccurate.

Early cannon were mostly of wrought-iron, though by no means exclusively so, for as already stated, bronze guns were cast even earlier than the last quarter of the fourteenth century, and the wardrobe account of 1370, has the following entry:—‘*iiij gunner feer, j gunner de laton.*’<sup>48</sup>

<sup>45</sup> *Proceedings, R.A. Institution*, vol. v. p. 24.

<sup>46</sup> From a Froissart illumination.

<sup>47</sup> Froissart was not present at the siege, but the figure probably portrays a contemporary gun.

<sup>48</sup> In French, *laiton*, a mixture of bronze and tin.

The emperor Napoleon the third's book<sup>49</sup> contains a vast amount of valuable data concerning early ordnance, such as indentures, inventories, and extracts from contemporary accounts, many of the documents being printed *in extenso*. These afford the most trustworthy evidence to be had; but like English MSS. of the period, of a similar character, there is practically no information given as to the sizes of the earlier guns, which can only be guessed at by a process of deduction, of the nature just applied to early English guns. This, however, leaves an impression, amounting to certainty, that all the pieces made up to about the end of the third quarter of the fourteenth century were small. In the *Etudes*, we find a reference given to 1375, when five small cannon are mentioned as costing under £2. The missiles employed in France were similar to those used in England. Cannon-arrows (*carreaux*) were made first of wood, feathered with brass and tipped with iron; later, they were of lead, and called *plommée*.

As to the arrangements for aiming, rough principles were known from the beginning, from the experience gained in the use of mechanical engines, of widely different trajectories.

In the last quarter of the century, guns were forged to project stone balls weighing from 20 to 450 pounds. The jump from very small guns to those of say ten, twenty, and even forty times their weight seems to have been the reverse of gradual, but great difficulty was experienced in the welding together of the strips of metal employed in the construction of the heavy guns.

Really large bombards, made to carry, say, from 200 to 400 pound stone shot, appear in England about the same time as in France and Flanders, in the years 1377-78, at least as far as there is any information, while in Italy, which country almost always took the lead in ordnance, they are mentioned a few years earlier.

Lieutenant Brackenbury, R.A., F.S.A., in an able paper on *Ancient Cannon*,<sup>50</sup> quoting from Andrea Redusio, in *Chronicon Tarvisinum*,

<sup>49</sup> *Etudes sur le Passé et l'Avenir de l'Artillerie* published in 1846.

<sup>50</sup> Printed in the *Proceedings of the Royal Artillery Institution* of 1847, vol. v. p. 32. He promised a continuation of his notes, and to carry them beyond the fourteenth century; but, if written, I believe they were never published, owing to a number of drawings, which had been prepared for them, having been destroyed by fire.

of what had come to that writer's knowledge during his lifetime, says :—'That when the Venetians attacked Quero, in 1376, they had bombards with them, such as had never been seen or heard of before in Italy. The bombard is described as an iron instrument of great strength, with a tube in front, in which is a large stone of the size of the tube, and it has a *cannon* joined on to it at its rear end, twice as long as the tube, but narrower,<sup>51</sup> in which a black powder, made of saltpetre, sulphur and willow-charcoal, is inserted in the opening of the cannon towards its mouth. This opening is then closed with a wooden plug, which is pressed in, and when the round stone has been inserted and adjusted against the mouth of the cannon, fire is applied through a small opening in the cannon, and the stone is projected with great impetus by the force of the lighted powder ; nor can any walls, no matter how strong, withstand it, as was found by experience in the following wars ; and when these bombards belched forth stones the people thought that God was thundering from above.' Previous to the invention of trunnions, such a gun was secured to a wooden bed or stand by means of thongs, hempen rope or wire, while small pieces, for a low charge, were fastened permanently, so to speak, to their stocks or stands, by iron bands. The cannon lay well down in a groove, and the beds or stands were provided with strong wooden uprights behind, strengthened by thick angle iron for sustaining the recoil. A stand of this description is on fig. B,<sup>52</sup> and on it lies the barrel of a chambered gun of the early bombard type, as described by Redusio. It consists of two lengths, the chamber, and the barrel. The latter portion is first laid in its bed and properly secured, then the part containing the chamber (*cannonen*) is slipped into its place after having been loaded and roped, and the whole is adjusted in position by a wedge, usually of iron. These wedges I take to be the *cocones*, mentioned in accounts, and not the wooden plugs or wads for separating the powder from the projectile, nor the *cavillis*, a

<sup>51</sup> The word *cannonen* is often used by Italian chroniclers to denote the chamber portion of the gun, whether in a cannon of two lengths, or for the breech-block for insertion in a space or chamber ; an inventory of Bologna of the year 1381, mentioned in the *Etudes* (t. i. p. 359), refers to chambers as *canons*.

<sup>52</sup> A stand and cannon of this kind is given by Mr. Grose in *Military Antiquities, respecting a History of the English Army*, vol. i. p. 398. The chamber-portion is adjusted in its place,

wooden wedge, covered with leather for fastening the breech-block in the chamber.

This system of guns, forged in two parts or lengths, at first probably applied to all guns, presented serious difficulties in the way of sealing and adjustment. It was, however, retained for a long time for guns of large calibre, and the ultimate screwing of the parts together effectually kept the powder gas in its right direction. Smaller ordnance was forged in one piece, with a space or chamber for the reception of the breech-block, which was also secured in position by a wedge. The difficulties of working the gun in two lengths, as shown on fig. B, are very obvious, and their action must have been most dilatory. The 'Dulle Griete' of Ghent, and 'Mons Meg,' afford illustrations of the screwing together plan, as indicated by the holes

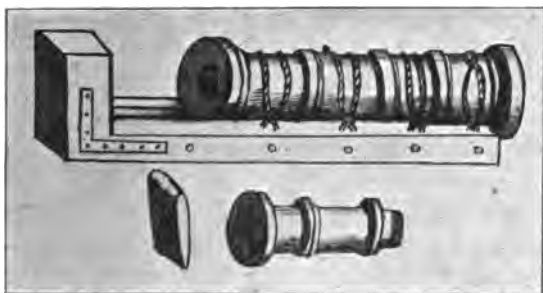


FIG. B.

in the hinder end for the reception of levers, and these guns became, in fact, muzzle-loaders, the divisions and even sub-divisions being so arranged merely for the purposes of transport.

Froissart speaks of very large bombardars, one he refers to as having been at the siege of Oudenarde, in 1382-1383, *jettant des carreaux merveilleusement gros*,<sup>53</sup> and another he mentions as having been at the siege of Odrnik, in 1377, shooting 200 pound shot. A gun called a 'bombard,' forged at Châlons, in the same year, for Philip of Burgundy, weighed 450 livres.<sup>54</sup>

<sup>53</sup> Froissart would appear in this case to have used the word '*carreaux*' as expressing missiles generally, and not literally, as cannon-arrows, and there are many such cases requiring careful examination.

<sup>54</sup> *Mémoires pour servir à l'histoire de France et de Bourgogne*, Paris, 1729.

The earliest instance of a large bombard occurs in the *Chronicles of Pisa*, in 1362 ;<sup>55</sup> this cannon exceeded 2,000 pounds in weight.

Monstrelet mentions, under the year 1478, a great bombard, made at Tours, with a ball '*cccc livres de fer*', while Florentius of Buda, makes the remarkable statement that a cannon, used at the siege of Belgrade, was twenty-five feet in length, which is of course much longer than the gun at Ghent, but even this great size would seem to have been exceeded in a cannon made at Bruges in 1445, the chamber alone being twelve feet long.<sup>56</sup> These large bombards were very difficult to manage when fired, and their wooden stands had but a very short life.

Fortunately, there are rare instances of very early pieces inscribed with the year of make, as instanced the bronze cannon, now in the Musée d'Artillerie, at Paris, by George Eendorfer, 1404.<sup>57</sup> These dated cannons are of great assistance in the approximation of the age of other specimens, as also are medieval drawings.<sup>58</sup>

I have not seen any definite statement as to the extent of the range of early cannon, but the emperor Napoleon, in the *Etudes*, quotes a MS. of 1346, in which comparisons are drawn between the respective ranges of cross-bows and cannon, and these are in favour of the former, cannon being looked upon as of much less importance. The MS. in question is a direction from the Sire de Cardilhac, etc., for the defence of Montauban, and is given *in extenso* in the *Etudes*. The mechanical engine *ribaudequin* would shoot its heavy brass-feathered arrows much more frequently than a cannon could do.

Richard Grafton, many of whose statements require critical examination, writing in *A Chronicle at large and Meere History of the Affayres of England*, 1569, says, in referring to the siege of Le Mans, in 1424 : 'The Englishmen approached as nighe to the walles as they might without their losse and detriment, and shot against their walles great stoness out of great Goonnes whiche kinde of enginnes before that tyme, was very little seene or hearde of in France ; the strokes whereof so shaken, crushed and rived the walles that within few dayes the citie was dispoyled of all her toures, and outward defences.'

<sup>55</sup> Muratori, *Cronica de Pisa*, tome 15, col. 740.

<sup>56</sup> *Etudes*, etc., t. iii. pp. 128-130.

<sup>57</sup> Appendix, No. 36.

<sup>58</sup> There is a fine collection of these at Vienna.

The time employed in loading very early cannon was so protracted that again and again we hear of batteries having been taken by the enemy, after a single discharge. To meet this difficulty in loading, several cannon were often mounted on one stand, and later, many chambers, ready charged, were supplied to each gun. The piece no. 3 of the appendix affords an instance of a double cannon.

Throughout the fifteenth century, and even later, great muzzle-loading pieces like 'Mons Meg,' continued being called bombards. Diminutives of this class, *bombardes portatives*, of the last quarter of the fourteenth century, which are mentioned by Froissart, and the somewhat later bombardelles, referred to by Andrea Redusio,<sup>99</sup> were in general use. A fine specimen, taken at Granson or Murton in 1476, is now in the museum at Nauveville (Canton Berne); it is clasped with iron bands to a wooden stock, and lies on its *cepi* or *cippus*, a square stand of wood: it resembles a very early handgun in form.

Although there was but little scientific knowledge or mathematical calculation applied to the construction of early ordnance at this time, there was clearly some idea in the first half of the fifteenth century, of the pressure the powder gas exercised on the bore during the discharge, and of getting each portion of the metal to bear its fair share of the strain; for before the middle of the century experience had taught that the strain on the piece when discharged decreases from breech to muzzle, and the parts were strengthened that needed it. A rule was established in the relations between the chamber and the barrel, that one pound of powder was required to project nine pounds of stone, and that the capacity of the chamber must be such as to contain the charge of a volume of three-fifths of its size, leaving one-fifth for the wad, which was constructed from the wood of the medlar or the ash, the remaining fifth being empty. The system of forging very heavy guns in separate compartments alone made the transportation possible.

Villeret, writing in the middle of the fifteenth century, thus describes cannon: 'their figure was that of a hollow cylinder,

<sup>99</sup> *Chronicon Tarvisinum*, 1376, and the *balleri* of Swiss Records.

strengthened from space to space by several embossed circles, the breech end terminating in a knob, and the match was placed between the first and second circles.'

After the battle of Hexham, 'sir Ralph Grey fled to Bamburgh, and was there besieged *cum maximis bombardis*, by the earl of Warwick. The king maker brought with him two huge cannon, one of which he called *London*, and the other *Newcastle*.<sup>60</sup>

Cannon continued very apt to burst, and we find the Scottish king James II. killed, when present at the testing of a bombard, possibly made in Scotland, in 1460.<sup>61</sup> The weakness lay, however, more in imperfect welding, rather than in the quality of the material employed, which was excellent, for a portion of a serpent gun, of the reign of Henry VI., 1422-1461, now in the Rotunda, at Woolwich,<sup>62</sup> has been tested, the result showing a tensile strength of 55,258 pounds to the square inch, being very little less than that of the best descriptions employed in the manufacture of the first Armstrong guns. This weapon is imperfectly welded together, for solder has been poured into the interstices, left in the process. Some of these guns continued in use for many years.

Other designations were now found for pieces of small calibre, and these had often two movable chambers. The *veuglaire*,<sup>63</sup> a cannon first consisting merely of the chamber box, and the barrel, appears in Flanders during the first decade of the fifteenth century, and this cannon (voegeleer) is so mentioned in the archives of Malines, about 1409. In 1406 the town of Mons had in its arsenal:— 12 cannons of iron, each with 3 chambers; 7 *veuglaire*s, with 2 chambers; 21 small bombardes (?), throwing darts; and 19 other cannon, each with 1 chamber; besides 6 of metal (bronze).<sup>64</sup> A *veuglaire* is scheduled in an inventory of the Canton de Fribourg, of 1445, as 'wigler,' Pierre Follare, 'fondeur,' and '2 *vulgaire*, à 2 chambres, de bronze' are referred to in the accounts of the same Canton, of 1454. Thirty-seven *colovrines* appear under

<sup>60</sup> 10 Camden Soc. Publ., p. 38.

<sup>61</sup> Lindsay of Pitscottie, 1728.

<sup>62</sup> Appendix, No. 4.

<sup>63</sup> Flemish, *voegeleer*, English, *fowler*.

<sup>64</sup> A. Lecroix, *Episode du règne Jean de Bavière (Jean-sans-pitié)*.

1450, and 3 *tarrasbüchsen*, de *Pierre Follaire, fondateur*, under 1445.<sup>65</sup> The *tarrasbüchse* is a light piece of small calibre,<sup>66</sup> essentially a field gun, but used from entrenchments, quickly thrown up on the field of battle. They are mentioned as having been employed against the Hussites, in 1427<sup>67</sup>. A drawing of one of these guns is given in *La Chronique bernoise de Schilling*.

*Coulevres*, *couleuvrines*<sup>68</sup> and *serpentines*<sup>69</sup> appear about the end of the first quarter of the century; the former were guns of a small calibre, and the latter smaller still. Fig. C represents a fifteenth century *serpentine*, in the *Porte de Hal* Museum, at Brussels; the carriage is a restoration from an old print.<sup>70</sup> The method of construction of many was the same as that of the bombard, being

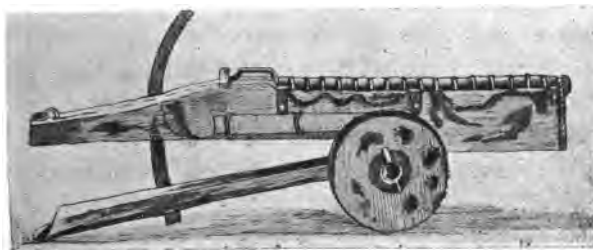


FIG. C.

longitudinal wrought-iron bars, welded together, and strengthened with rings, the walls of the chambers were thicker than those of the barrels, which were of a considerable length in proportion to their diameter, say from twenty to forty calibres or more, but without any fixed rule in this respect. Other guns of these classes were of bronze, but all without trunnions, until these appliances appear, probably early in the third quarter of the fifteenth century. *Strittbüchsen* and *Riegelbüchsen*<sup>71</sup> are mentioned in German

<sup>65</sup> *Archives de la Société d'Histoire de Canton Fribourg*, 1900, tome vii. p. 107.

<sup>66</sup> *Tarras*, an entrenchment, rapidly extemporized on the field.

<sup>67</sup> *Le développement des armes à feu*. Schmidt, 1870.

<sup>68</sup> Culverine.

<sup>69</sup> Guns were often named after birds or serpents. Culverin is said to come from *Colubrine*, a kind of snake.

<sup>70</sup> See Appendix, No. 41.

<sup>71</sup> *Riegel*, a bolt or bar, but whether this alludes to the missiles employed, or to the rack with its bar on the gun carriages, is uncertain.



accounts as field guns with two-wheeled gun carriages. The term *courtaud* appears after the middle of the fifteenth century. The *Chroniques d'Angleterre*, written for Edward IV., contain some representations of the cannon of that reign.

Late in the century, Leonardo da Vinci, born in 1452,<sup>73</sup> and others, began more scientifically to treat the subject, hitherto guided merely by a knowledge of certain empirical rules.

In the museum at Edinburgh are rude specimens of ordnance from Wemyss castle, Fife, one with two wrought-iron barrels, about thirty inches long, and 2·5 inches in calibre. They are strengthened with rings, and the intervals are bound round with small cord, the whole has been covered with leather, and the piece is further fortified with thin copper at the breech and muzzle. Another smaller gun of similar construction has four barrels.

There is a wooden cannon, strengthened with iron rings, which was brought from Cochin China, and now lies in the Musée des Invalides, at Paris, but there is nothing to indicate its date of make,<sup>73</sup> and the same may be said of the cannon at Genoa, made with wooden staves, and covered with leather.

A mortar in the arsenal at Vienna is made of several layers of coiled hempen rope, with an outside covering of leather, said to have been captured from the Turks ; and mortars made of paper, also covered with leather, lie in the arsenal at Malta. All these guns are doubtless provided with an inner tubing of metal of some sort.

It is stated that the Venetians used small leather mortars at the battle with the Genoese and Paduans before Chioggia in 1379 ; when some of the guns are said to have burst on the first discharge : one of these weapons, believed to have been used at the battle, is still preserved in the arsenal at Venice.<sup>74</sup> Leathern cannon, with an inner tubing of beaten copper, were used at the siege of Hohensalzburg in 1525 : and by Gustavus Adolphus in his earlier campaigns, which are said to have been brought to his army by an English knight,

<sup>73</sup> This remarkable man, besides being a great painter and sculptor, was deeply versed in dynamics.

<sup>73</sup> There is a wooden cannon at Woolwich, which was used by the Canadian rebels in 1837 ; it is bound round with four iron hoops, and is without trunnions. It was loaded with buck shot and small pieces of lead.

<sup>74</sup> Great bombards are freely mentioned in accounts of the series of engagements that took place, but I see no references to the leather pieces.

sir Robert Scott, who commanded a troop of Free Companions in the king's service. The king of Sweden replaced these guns by iron four-pounders, one of which went with each regiment. They weighed each about six cwts., and were drawn by a pair of horses.<sup>75</sup> The king made the first really effective use of cannon in the field; the victory at Leipsic, in 1631, was almost entirely due to the mobility of his artillery; Tilly's guns being of no account whatever. Cannon covered with leather were not uncommon in the seventeenth century—examples may be seen at Zurich. The 'Kalter' guns of Gustavus Adolphus were specially constructed with a view to mobility; but they could only bear the strain of a small charge. The ball passed through a thin copper cylinder, screwed into a brass breech, the chamber being strengthened with four bands of iron. The tube is covered with layers of mastic, around which hempen cord is wound, then comes a layer of plaster (lime), and the whole is covered over with leather, boiled and varnished.<sup>76</sup> There is an example in the Rotunda collection at Woolwich,<sup>77</sup> and two others are at the Invalides, Paris.

Iron shot is usually considered to have been an invention of the fifteenth century; but this is not so, for iron balls are mentioned in the Florence reference of 1324-1326, already alluded to. It is certain, however, that the great majority of projectiles used in the fifteenth century were of stone. A more particular reference to this subject will be given later in these pages.

There were very early mortars, hollow tubes, like an inverted cone; they were short pieces of large bore, and some were graduated in the tube for the reception of shot of different diameters. Like bombards, very large mortars were made late in the fourteenth and early in the fifteenth centuries; but the size was much reduced later. A very large specimen called *Der grosse Pumphart von Stehr* lies now in the Herres museum, at Vienna. Length, seven feet, ten inches; diameter, three feet, six inches. The English army before Orleans, in 1428, had a train of fifteen breech-loading mortars.<sup>78</sup>

<sup>75</sup> Owen, *Modern Artillery*, p. 345.

<sup>76</sup> Chesney's *Observations on Firearms*; published in 1852.

<sup>77</sup> Appendix, No. 17.

<sup>78</sup> Jollois, *Histoire du Siège d'Orléans*.

The cannon, at first without trunnions, which do not appear before the beginning of the second half of the fifteenth century, was cylindrical in general form, and made of longitudinal bars of wrought iron, in overlapping sections, welded together on a mandril, or a core, and with hoops shrunk on, somewhat similar in principle to the first Armstrong guns ; which were built up with concentric layers, shrunk over one another, on a hollow cylinder of forged iron, so as to produce compression of the inner tube ; the outer covering being in a state of tension. An experiment was made in 1857, by Mr. Mallet, who constructed a thirty-eight inch mortar, by shrinking a number of wrought-iron rings over one another, strengthening the outside by longitudinal bars. The gun was ruptured after a few rounds, owing to the imperfect welding of the rings. Lefroy, in *Note on Mortar Practice*, estimates the mean weight of the thirty-six inch shells loaded at twenty-six cwts.

The windage allowed in all forms of ancient cannon was excessive ; and the force of the recoil was so ill-managed as sometimes to throw the pieces off the stands on which they were placed. This force would greatly depend on the rate of the combustion of the powder : one rapidly converted into gas would produce a low recoil, while the contrary is the case when the powder burns more gradually. The ballistic force of the explosive used, in the fourteenth and fifteenth centuries, must have been very low ; but there is every reason to believe that a low grade of powder was purposely employed, on account of the great liability of the guns to fracture by reason of the imperfect welding of the longitudinal bars of iron used in the construction of the cannon ; and that a knowledge existed, from the very earliest introduction of ordnance of a much stronger compound.

Cannon were fired with a live coal, or by a firing iron, heated in a pan of charcoal (payrolet). Accessories, such as hammers, shovels, and bellows for blowing the charcoal, constantly recur in accounts of stores.

Volturius, writing in 1472, describes the war engines then in use, including cannon, and guns of that period continued in employment as late as the reign of Henry VIII., as shown among the specimens recovered from the wreck of the ' Mary Rose.' <sup>79</sup>

<sup>79</sup> Lost off Portsmouth in 1545.

Napoleon III., in the *Etudes*, refers to two bombards taken from, or left by, the English at the siege of Mont St. Michel in 1423, and a drawing of them is given by Captain Favé in his continuation of the work. These guns are thus of a considerably earlier date than 'Mons Meg,' and very valuable as illustrating the bombard of the first quarter of the fifteenth century. General Lefroy, R.A., F.R.S.,<sup>80</sup> quotes the abbé Desroches as referring to the guns as being made of bars of iron, two inches in thickness, bound round with hoops of the same material and that in the larger piece is still to be seen the stone shot with which it is loaded.<sup>81</sup> It is far from uncommon to find ancient guns ready loaded and charged; and an apron or hinge over the vent, a protection against wet, so often present on ancient guns, shows that it was customary to have cannon ready loaded for discharge when likely to be required, and in this condition they often remained for days and even longer.

One of these bombards is rather larger than the other and the system of construction, that of longitudinal bars welded together, is the same. The larger gun is 19 inches in present calibre and twelve feet in its entire length, the chamber taking up about one-fourth. The granite balls are about 18 inches in diameter.

The smaller gun has a calibre of 15 inches and is 11 feet 9 inches in total length. The granite ball for this gun is  $\frac{3}{4}$  of an inch less in diameter than the calibre of the cannon. The weight of the two guns are  $5\frac{1}{2}$  and  $3\frac{1}{4}$  tons respectively, thus the larger piece is even heavier than 'Mons Meg,' although with a considerably smaller calibre.

Favé quotes freely from the artillery accounts of the dukes of Burgundy; and mentions that in 1436 a bombard called *Bourgogne* was forged in two pieces for rendering transportation more easy: the pieces were conveyed on separate waggons, each drawn by 48 horses: and were screwed together for firing; as in the cases of 'Mons Meg,' and the 'Dulle Griete' of Ghent; this system was further developed in 1443, in the case of two bombards, each consisting of four pieces. Favé mentions, under the same year, a bombard called *Dijon*, the barrel portion of which, alone, weighed 20,000 livres: also another cannon, the chamber portion of which was 12 feet long;

<sup>80</sup> *Proceedings, Royal Artillery Institution*, vol. iv. p. 10.

<sup>81</sup> One of the shot for this gun is now at Woolwich.

throwing a projectile 22 inches in diameter. In 1451, a bombard was made at Luxemburg, weighing 36,000 livres ; and it received the name of that town.

There is a bombard in the arsenal at Dresden dating towards the end of the fifteenth century ; calibre, 14 inches. It is named *Die faule Magd* (the dirty maid), and another at the arsenal at Bâle ; calibre, 18 inches.

We have a familiar instance of a bombard of the middle of the fifteenth century in the Scottish cannon, 'Mons Meg,' already referred to, and a rent near the breech is instructive in laying bare the system of construction, which has just been described. The bore of the barrel is largest near the chamber, which appears from a rule laid down by Wolfius to have been considered an advantage in these times. The inscription on the gun, placed there at the instance of sir Walter Scott, states that the bombard was forged at Mons, but it is believed by some to have been made in Galloway in Scotland and presented to James II. by the town of Kirkcudbright, when the king went to besiege Thrieve castle (the Douglas stronghold) in 1455 ; and that it was named after 'Meg,' the wife of the smith who forged it in a few days, for the king's use.<sup>82</sup> The king is said to have granted the lands of Mollance to the smith in recognition of his skill, and hence the *sobriquet* 'Mollance Meg,' shortened to 'Mons Meg.' Some support is afforded to this legend by the discovery of a deep bed of cinders at Carlingwark when making a road, showing that there had probably been a great forge there in early times, and the statement that the king was killed in 1460 by the bursting of a cannon, when it was being tested, would tend to show that ordnance was being made in Scotland about this time. Holinshed<sup>83</sup> states that about the year 1498 James IV. gave orders to Robert Borthwick to make field pieces and other guns in the castle of Edinburgh, which guns were inscribed, *Machina sum Scoto Borthwick fabricata Roberto*.

Some entries in the *Accounts of the Lord High Treasurer of Scotland* are, however, fatal to this patriotic legend,<sup>84</sup> for there the gun is referred to as 'Monns,' 'Mons,' and 'Monsis,' and the addition of the affix 'Meg' does not appear in any record before the seventeenth

<sup>82</sup> *History of Galloway* (Kirkcudbright, 1841).

<sup>83</sup> Vol. v. p. 470.

<sup>84</sup> 1473-1498, H. M. Gen. Register House, Edinburgh, 1877.



'MONS MEG,' AT EDINBURGH CASTLE.



century. The space at my disposal will not permit of giving any lengthy extracts from these records, however interesting; but a selection from them follows, sufficient to establish the point, which is important :—

1489.

'Item, gevin the gunnaris to drinksilver quhen thai cartit Monss,  
be the Kingis commande<sup>88</sup> ... .. xviijs.'

1497.

'Item, that samyn day [x day of Aprill], giffin to Johne Mawar,  
elder, in part of payment of the quhelis<sup>89</sup> making to the  
bombardis and Mons ... .. iiijs<sup>88</sup>.'

'Item, the last day of Maij, in Edinburgh Castell, at the casting<sup>87</sup>  
of Mons, gevin to the Kingis command to the gunnaris ... xviijs.'

'Item, [the xx day of Julij] for iiiij gret towis<sup>88</sup> to Mons, weyand  
xvj stane five pund : for ilk stane ... .. iiijs'

'Item, to the menstralis that playit Mons doune the gait ... .. xiijs.'

'Item, giffin for xiiij stane of irne, to mak grath<sup>89</sup> to Mons new  
cradill, and gaviilokkis to ga with hir, for ilk stane ... xxviiijs.'

In this year (1497), sir Robert Ker is master of the artillery. An item appears for conveying a great bombard from Edinburgh to the siege of Thrieve and back to Linlithgow; and it seems in every way likely that this was 'Mons Meg' herself; though there were, however, other large bombards in Scotland at the time, imported from Flanders; indeed, that country was then supplying most of the countries of Europe.<sup>90</sup> The Exchequer Rolls show payments for freight for a bombard called the 'Lion,' in 1430,<sup>91</sup> and there is also an item for damage done by the great gun, when being hoisted on board the vessel. Another bombard from Flanders is mentioned under the year 1441-1442. Certain it is that guns similar to 'Mons Meg' were made in Flanders about the middle of the fifteenth century, as an instance the 'Dulle Griete,' now at Ghent, which bombard resembles 'Mons Meg' in every detail of construction. The sobriquet 'Meg' also looks like an importation, for 'Griete,' a popular name for cannon in the Low Countries, is the Flemish equivalent for 'Meg.' This is suggestive of the possibility

<sup>88</sup> This is the year of the siege of Dumbarton.

<sup>88</sup> Wheels.

<sup>87</sup> This must be for castings in connexion with the carriage.

<sup>88</sup> Ropes.

<sup>89</sup> Gear (?).

<sup>90</sup> Charles VII. bought a number of guns of Tournay in 1440. Monstrelet, chap. cclv.

<sup>91</sup> Bower, *Fordun Scotichronicon*, lib. xvi.



that the gun may have been popularly known as 'Mons Meg' in the fifteenth and sixteenth centuries, though referred to in the official documents as 'Mons,' etc. We hear of 'Mons' as having been engaged at the siege of Dumbarton castle in 1489, and she was probably also at Norham in 1497.

'Mons Meg' was last discharged in 1682, firing a salute in honour of the duke of York, when she burst. It is not stated whether or not the charge was too large—perhaps it had been forgotten that a cannon lives its life like everything else—and this gun would not be able to bear much strain after a career of more than two centuries and a quarter. The old wooden carriage, though not the original one, for items appear in the Treasury accounts for 1497 for a new 'cradill' for 'Mons,' fell to pieces in 1835, and the present one of iron was cast at Woolwich in the following year. An inscribed stone, which formed part of a gate of Edinburgh castle, represents the cannon as mounted on an ancient carriage.

The calibre is about 20 inches, the length 13 ft. 6 ins., and the present weight of the gun about five tons. There is reason to believe that the projectile used was a granite shot, weighing 330 pounds.

I have no doubt that the barrel was screwed on to the chamber portion, for the holes in the hinder end for the insertion of levers for manipulating the screwing together and the reverse, observable in the case of the great Ghent gun, are present here also. Plate 1 gives a representation of 'Mons Meg' as she now is. It would not be safe to assign a higher antiquity to the cannon than the middle of the fifteenth century.

There is another 'Meg' in the bombard called the 'Holle Griete' of Diest, and it is thought to be only the chamber portion of a large gun. The present length is 1·67 m. The chamber portion of a large bombard could be, and, indeed, often was, used by itself.<sup>92</sup>

#### THE 'DULLE GRIETE' AT GHENT.

This great cannon closely resembles 'Mons Meg' in form and construction generally, but she is much larger. The name is literally 'Mad Margaret'; so also a 'Meg'!

<sup>92</sup> An exhaustive account of 'Mons Meg' appears in the *Annales du Cercle Archéologique de Mons*, t. xxiv.; written by M. Armand de Behault de Dornon, Mons, 1894.



THE 'DULLE GRIETE' AT GHENT.



Like her sister 'Mons Meg,' she is constructed in accordance with the methods prevailing about the middle of the fifteenth century, and is made entirely of wrought iron. The part containing the chamber is screwed to the barrel portion, and the small holes observable in the former are for the insertion of levers for screwing the parts together, or the reverse. The barrel is composed of 32 bars, each of which is 55 millimetres broad, by 30 mm. in thickness, welded together longitudinally, like the staves of a cask. These are covered with 41 rings of equal breadth, welded together, and their different thicknesses exhibit the barrel in four telescopic divisions, the outside diameters of which measure 1·00, 0·938, 0·880, and 0·820 m. respectively. The three rings comprising the muzzle are of different thicknesses, the last being the greatest.

The chamber is composed of twenty rings welded together. Three-fifths of its capacity correspond, nearly exactly, to the volume of 38 kilos. gunpowder, of a density of 0·9, being one-ninth of the weight of the projectile, the remaining two-fifths being taken up by the wooden wad and empty space.

The total weight of the cannon is 16,400 kilos; and the probable weight of the projectile used is about 340 kilos. The total length is 5·025 m., inside the barrel 3·315 m., and present diameter there 0·64, length of the chamber inside, 1·375.

The general arrangements of the 'Dulle Griete'<sup>93</sup> are those of the middle of the fifteenth century. It is therefore obvious that it could not have been used at the siege of Oudenarde in 1383, as is often stated to have been the case. Besides, the arms of Burgundy encircle the vent-field, and the princes of that house did not commence their rule in Flanders until 1384. It is recorded, however, that this bombard was used at another siege of Oudenarde, by the Gantois in 1452; on which occasion the defence was conducted by Simon de Lalain.<sup>94</sup> The town was relieved by the duke of Burgundy and the cannon fell into the hands of that prince. It was restored to Ghent

<sup>93</sup> 'Mons Meg' is 3<sup>m</sup> 97 long; and greatest diameter 0<sup>m</sup> 73. Compare these cannon with the 130 ton gun, fired recently at Sandy Hook. Length of gun 16 yards, charge of powder 600 lbs., trajectory over twenty miles.

<sup>94</sup> *Chronique de S. de Lalain*, chap. 81.

in 1578,<sup>95</sup> where it now lies. Plate 2 gives a representation of the bombard, where it stands at present.<sup>96</sup>

Instances of the use of ordnance multiply as the fifteenth century advances, for by that time the influence it exercised on campaigning generally, and more especially on the assault and defence of fortified places, began to be of such importance that every chronicler of warlike operations has something to say about it. Many of these early writers are, however, both fanciful and inaccurate in their statements.

Several cannon were employed in the reduction of Bamburgh and Dunstanburgh castles in 1465. William Nele, 'gunnoure,' had a grant for life of sixpence daily for his good service in making cannon within the Tower of London and elsewhere, March 10, 1484.<sup>97</sup>

Nicholas Merburg was master of ordnance in England in 1414,<sup>98</sup> Gilbert Parr in 1433,<sup>99</sup> Thomas Vaughan in 1455,<sup>100</sup> John Jedd, or Judd, in 1456,<sup>101</sup> Raufe Bygood in 1483,<sup>102</sup> sir Richard Gilsford in 1485,<sup>103</sup> sir Nicholas Appleyard in 1513,<sup>104</sup> sir William Skevington in 1523,<sup>105</sup> sir Christopher Morris in 1537,<sup>106</sup> sir Philip Hoby in 1548, and sir William Pelham in 1558.<sup>107</sup> The office was not abolished before 1852.

Trunnions, cylindrical pieces of wrought iron on each side of the piece, fitting into sockets, supported and balanced the cannon on its stand or carriage and prevented its being thrown off by the force of the recoil, as had been often the case with earlier appliances when not enclosed by heavy pieces of timber. Trunnions also assisted in the pointing of the gun. The invention probably dates a little before the campaign of Charles the Bold (1474-1477). One of the accounts of the town of Lille, of the year 1465, contains an item for *one* trunnion, to be made for a big serpentine; and this looks like a replacement, for one trunnion on a gun would hardly answer the purpose required. A

<sup>95</sup> *Audenaerdische mengelingen*, t. i. p. 10.

<sup>96</sup> Fuller particulars of this bombard are given in *Histoire de l'Artillerie en Belgique*, par M. Paul Henrard. Brussels, 1865.

<sup>97</sup> Cal. of Pat. Rolls, 1 Richard II.

<sup>98</sup> Rymer's *Foedera*.

<sup>99</sup> Nicolas's *Privy Council Proceedings*, vol. v.

<sup>100</sup> Bayley's *Hist. of the Tower of London*.

<sup>101</sup> *Excerpta Historica*, p. 10.

<sup>102</sup> Harl. MS. No. 433.

<sup>103</sup> Grose's *Military Antiquities*.

<sup>104</sup> Holinshed.

<sup>105</sup> *Ibid.*

<sup>106</sup> Grose's *Military Antiquities*.

<sup>107</sup> *Ibid.*

serpent gun of the reign of Henry VI., now at Woolwich,<sup>108</sup> affords an early example of a gun with trunnions.

In the nature of things, there have been no very early stands or gun-carriages handed down to us, and we owe any knowledge we possess as to their form, substance and construction, mainly to references made to them in MSS. of a more or less contemporaneous character, and we are indebted to a few very rare drawings, and inscriptions on stone, for what we know of those of a somewhat later date. The ancient stands and carriages, of which there are actual examples, are doubtless renewals, for all information concerning them goes to show that they had but a very short life, owing to the proportionately heavy recoil of the guns to which they were attached. This influence was naturally much more destructive after, say, 1360-1380, when larger guns were made, and especially in the case of the stands or beds for great bombards. A contemporary chronicle of Nuremberg states that the baulks of timber, of which the stands were composed required renewal every three or four days!<sup>109</sup>

There are specimens of stands and gun-carriages of the reign of Henry VIII., and probably also of a still earlier time, in the examples recovered from the wreck of the 'Mary Rose,' sunk off Spithead in 1545. Some of the guns preserved in the Swiss and other arsenals and museums go back to the middle of the fifteenth century, but it is very doubtful if any of the beds or gun-carriages preserved are contemporaneous with the making of the guns to which they are now attached. The Burgundian guns were continued in use by the Swiss, as shown by various inventories preserved, and as almost all of them were without trunnions, it was natural that when new beds or gun-carriages became necessary, they would be made on the old models, as being more suitable for pieces of that description than the newer fashion for guns with trunnions. The wretched condition of the roads of the period would alone tend to give gun-carriages but a short life.

Brackenbury<sup>110</sup> reproduces from the *Etudes* the description of a bed for a cannon which follows below. The cannon and bed

<sup>108</sup> Appendix, No. 4.

<sup>109</sup> Boenheim's *Waffenkunde*, p. 434.

<sup>110</sup> *Proceedings of the Royal Artillery Institution*, vol. v. p. 9.

were ordered to be made at Caen in 1375 by one of the king's councillors. The bed for the cannon comprises a large piece of elm to encase the body,<sup>111</sup> another portion for the side-pieces, a large piece of elm for the front side-pieces for lowering and raising the cannon when required, three pieces of wood for the *patrons*, etc., a piece of oak for the rear side-pieces, two great pieces of wood for the lower beams to carry the cannon, wood to make the long bands (*lons lyans*), etc., four pieces of wood for the *chappeaux* and *petits lyans*, etc.

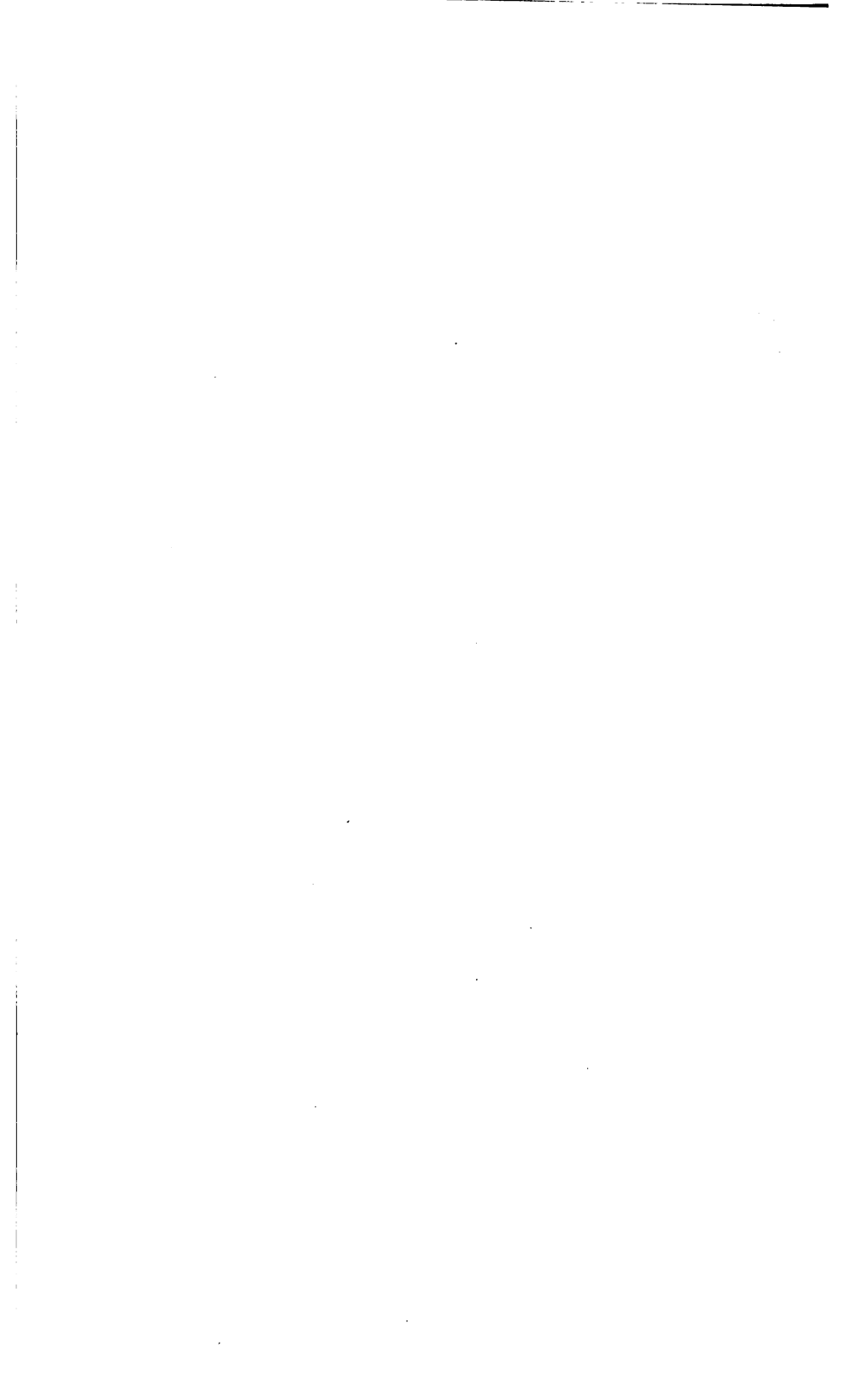
The bed thus made would appear to have continued in the same fashion during the century following, for the description corresponds with contemporary illustrations of fifteenth century stands. Sometimes, more especially for ordnance of the last quarter of the fourteenth century, wheels were placed under the bed for mitigating the force of the recoil. Two cannon lying together on a rough bed with wheels are given in the Froissart illumination showing the attack on the town of Aubenton by the earl of Haynault—one of the wheels has fallen off. The siege took place in 1340, and therefore at too early a date for the large guns and beds represented, but it gives an idea of both the type of cannon and stand in use some thirty years later.

The early gun-carriage was rough and clumsy, with heavy wooden wheels and axle-trees of the same material, without gun limbers or gear, and drawn by oxen ; but it had much improved by the beginning of the second half of the fifteenth century.

The first mention of two-wheeled gun-carriages is, I believe, in *Chronicon Tarvisinum*, by Andrea Redusio, in connexion with the siege of Quero in 1376 ; and I have already referred to the *ribaudeaux* on wheels used in the battle between the forces of Bruges and Ghent in 1382, and when Jean-sans-peur invaded Vermandois in 1411 with an army of 40,000 men, he carried with him two hundred *ribaudeaux*, constructed to carry one or several cannon.<sup>112</sup> The early *ribaudequin* consisted of a rough carriage on two wooden wheels, carrying two or three small cannon. The projectiles employed were cannon arrows. A wooden mantlet protected the gunners in rear ; and the carriage bristled with spears fixed on to it. Originally the machine was

<sup>111</sup> That is to say, deeply grooved.

<sup>112</sup> *Chronique de Monstrelet*, chap. lxxxiv. p. 205.







'FELDSCHLANGE,' FROM THE BATTLE OF GRANSON.  
Now in the Naureville Museum.

intended for one discharge only, after which it fell to the rear. The guns were fixed on the carriage at an invariable angle, but later specimens show many improvements. Demmin gives an illustration of the engine in his book, copied from a drawing executed about 1505, in Nicholaus Glockenthou's work, now at Vienna. *Ribaudeau* continued in use for long; they are mentioned in Elizabeth's reign.

The application of the rack principle, which took various forms, was a great step forward, more especially so when combined with a wheeled carriage. The cannon lay on a wooden plane, which was attached to the bed of the carriage in front by a pin passing through staples or by a hinge, and its tail rested on a bar passed through holes in the rack; or it was attached by the bar passing through the tail, as shown on plate III. The rack was connected with the plane in front, and on either side by rods for adjustment to the angle of elevation or inclination required; or by a directing bar of iron, holed at intervals, which was fixed to the bed of the carriage, and the tail of the plane worked up and down, the gun being secured at the necessary angle by a pin, as shown on fig. C. A gun-carriage, now at Woolwich, recovered from the wreck of the 'Mary Rose,' is grooved on the under side to slide on a directing bar. Drawings of the rack system are given in the *Zeitblom MS.* of the fifteenth century. The timbers of the carriage rested on a single shaft mortised into the axle-tree bed, and connected with the trail.

Quite a number of ancient guns, many of them stated to have been taken by the forces of the Swiss cantons during the period from 1474 to 1476, are spread over the arsenals and museums of Switzerland,<sup>113</sup> and some of the reputed Burgundian guns are at Paris. Several of the guns, supposed to be Burgundian, are of very early date, half a century earlier than the battle of Granson, the explanation being that duke Charles lost most of his field artillery at Granson and Murten; and for the battle of Nancy, all the old fortress pieces and guns of position that could be laid hands on were requisitioned for the army; or it may be that some of the reputed Burgundian cannon are really Swiss or German pieces. The archives of the Canton de Fribourg contain inventories

<sup>113</sup> There are fine collections, at Nauveville (canton Berne), Morat (Murten), Zurich, Bale, and Soleure.

of cannon as early as 1431 ; that of 1503 shows a remarkable increase in the number and variety of guns possessed by the Canton, over the one taken in 1474. Some of them are scheduled as *pièces conquises*, and this probably refers to the Burgundian cannon that had fallen to the share of Fribourg, at the division after the battle of Nancy.

A *feldschlange*, on its carriage, stated to have been taken at Granson, is represented in plate III. The gun is now in the excellent historical museum at Nauveville (Canton Berne) ; and I am indebted to the director for having had a photograph specially taken for the purposes of these notes. The rack arrangement is shown very clearly, but the gun-carriage is probably not the one used by the Burgundians, though made on the old model. The collection at Nauveville consists of seven pieces, on carriages with two wheels, and of three bombards with their projectiles.

The cannon at the gymnasium at Murten (Morat) are as follows, viz. :—cannon, wrought iron, strengthened with rings, chamber portion wanting, two rings for haulage. Present length of cannon, 66 centimetres ; diameter at muzzle, 14 ; and behind, 7.5. Mounted on oak carriage, 253 centimetres long.

Small bombard, on low stand. Length, 44 centimetres ; calibre, 14. Plate IV. represents these two cannon.

*Feldschlange*, wrought iron breech-loader. Length, 140 ; calibre, 8 ; mounted on oak carriage, 255 centimetres long. The cannon is strengthened with fifteen rings, and has two rings for haulage.

Small mortar, without stand. Length, 48 ; calibre, 16, 5. Fig. D represents these pieces.

There is another *feldschlange* of bronze, much shorter and thicker, mounted on an oak carriage.

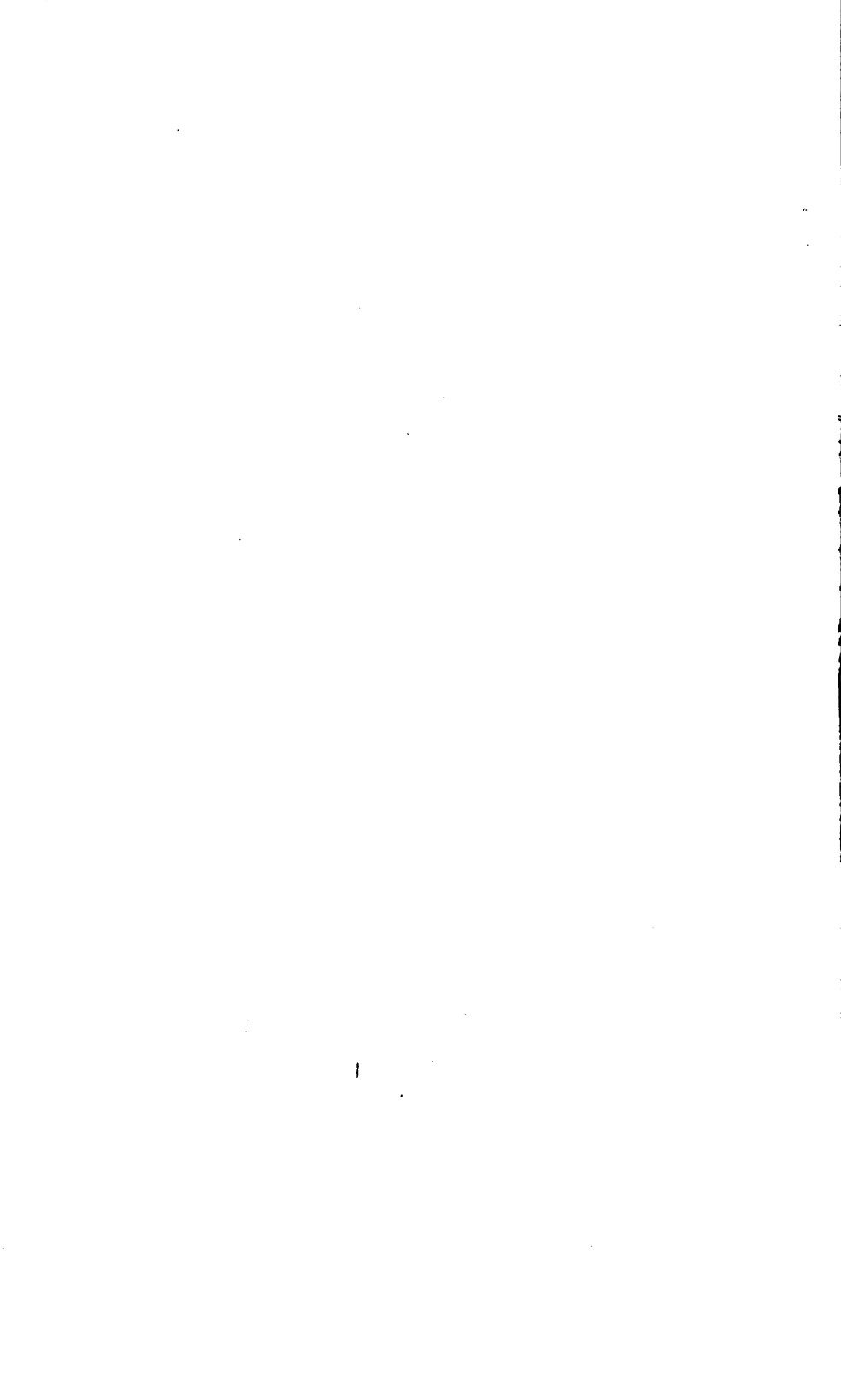
Two other cannon, one with carriage ; and another small bombard.

My best thanks are due to direktor S. Müller of Lowenberg, Morat, for his kindness in having had the guns specially photographed for the purposes of these notes, and also for sending me the dimensions.

Among the *veuglaires*, captured by the Swiss, is one at Nauveville without trunnions, showing three aiming sights ; but I am not aware of any of the other guns taken having fixed sights ; nor, in fact, do such sights appear, as a rule, on sixteenth century cannon.



CANNON FROM MORAT (MURTEN); AND SMALL MORTAR.  
Now in the Gymnasium, Morat.



The *Chronique bernoise de Schilling* states that Charles left 420 cannon, exclusive of hand guns, on the field of Granson; and among them were many heavy guns (hauptbüchsen),<sup>114</sup> besides coulevrines, and bombards (steinbüchsen?). These were divided among the Swiss cantons, and their allies; and in the course of time many of them have found their way to other parts of Europe.

A later form of gun-carriage consists of two strong side timbers, sloping gently to the ground, beyond the cannon behind. These are,



FIG. D.

united by the bed, in which the cannon rests on its trunnions, Holes for the insertion of a pin, at different altitudes, pass right through, and the adjustment of this pin, or bar, to which the tail of the piece is drawn, secures the angle of elevation required.

A representation of a Bavarian falconet, of the year 1524, on its gun-carriage, drawn by a single horse, is given on fig. E.<sup>115</sup>

Fronsperger in his *Kriegsbuch* of 1573, gives a drawing of a

<sup>114</sup> Probably Courteaux.

<sup>115</sup> *Studie über die Entwicklung des Geschützwesens in Deutschland*; by Custos Wendelin Boheim: published in *Zeitschrift für historische Waffenkunde*, vol. i. p. 61. The illustration was copied from *Das Büchsenmeisterbuch* of Christof Seselschreiber, of the year 1524: now in the Königl. Hof- und Staatsbibliothek, at Munich.

cannon, weighing 75 cwts., drawn by 25 horses. It furnishes an example of the loading rod of copper, and the square used in aiming.

Drawings of gun-carriages of the sixteenth century, from a work entitled *Entrée de Charles V. à Milan, avec le pape Clement VII.*, are, I understand, reproduced in De Vigne's *Vade-Mecum du peintre*. I have not been able to see the drawings.

The ancient cannon in the donjon of the castle, at Newcastle-upon-Tyne, are as follows:—5 ship falconets; 1 cannon with trunnions; and 3 guns brought from China, all in the so-called banquetting-hall; 1 piece of ordnance, also from China, in the basement; and 10 ship guns on the battlements.

The five ship falconets, were in all probability, worked on swivels.



FIG. E.

The guns are in such a condition of dilapidation and corrosion, that it is extremely difficult to arrive at any very exact determination concerning the approximate date of make. They differ somewhat, though not very materially, in size—four have trunnions; and these supports have been chipped off the fifth—these guns are made of cast iron, excepting the trunnions and tail-pieces, which are of wrought iron.

Two of them want the fore, and two the after, portions; while but one retains part of its tail-piece. All are breech-loaders, but none of the breech-blocks has been recovered.

The original length of four of the guns must have been something over seven feet from the muzzle to the tip of the tail, length of chamber about 15 inches, length of barrel about 4 feet 2 inches; the

fifth cannon has been larger, say, 7 feet 6 inches to 7 feet 10 inches, but the hinder end, with the tail-piece, has been broken off. The inner tubes are all more corroded away as the muzzle is approached, so that the present measurements at the mouths, which range from  $1\frac{1}{2}$  to nearly 2 inches in diameter, are in excess of the original calibres of the guns. The bottoms are out of the chambers so that the arrangements for the reception of the breech-blocks cannot now be discerned, but a bolt ran through the latter and a tenon and mortice at the bottom secured the block, while the insertion of a wedge made the whole fast. The largest of these guns is very similar in form and size to one dragged up from under the sea by some fishermen near the Goodwin Sands in 1775,<sup>116</sup> but that gun is of brass and consequently in a much better state of preservation than the cannon under review.



FIG. F.

Fig. F<sup>117</sup> represents a ship falconet now at the Port de Hal, Brussels. Length of barrel, 5 feet 2 inches; calibre, nearly  $1\frac{1}{2}$  inches. This piece presents its handled breech-block in position for firing, the swivel on which it pivoted, and the tail-piece, in this case bent downwards for the purpose of elevation. Another swivel falconet with a tail-piece straight, like the tail-pieces of the castle guns, is now in the Caerleon museum. This type of cannon, one of the attempts made to perpetuate the movable chamber system, was only suitable for a small charge of fine grain powder and it had no recoil to speak of. They were mostly employed on warships of small tonnage and hence the fact of their being always found in the beds of rivers and on the sea shore. Quite a number have been fished up. This type of gun is the pierier, perear, or pateros, mentioned in inventories. Mr. Gibson,

<sup>116</sup> *Archaeologia*, vol. v.<sup>117</sup> Appendix, No. 42.



the warder at the castle, suggests that these guns had been thrown overboard in the Tyne, in the bed of which they were found, to avoid capture when Newcastle was besieged by the Scots in 1644. There is a tradition that king Charles attempted an escape from Newcastle in 1645 'by the passage of Lort Burn and that he got down as far as the middle of the Side, when he was caught in his attempt to force the iron grate at its outlet. A ship was said to be in readiness to receive his Majesty.'<sup>118</sup> But, however this may be, the guns would appear to date from an earlier period, say in the sixteenth century, like the Brussels falconet, fig. F;<sup>119</sup> but for all that it is far from being impossible that they were still in use in the century following.

#### BLEECH-LOADING CANNON WITH TRUNNIONS.

This piece of ordnance is made of cast iron strengthened with wrought iron rings, shrunk on—the tail-piece and trunnions are of forged iron. I was of opinion that the body of this cannon was of cast iron, but could not be certain by reason of the corroded and rusty condition of the piece, but to make sure I consulted Mr. Towers, the manager of the works of Messrs. John Abbot & Co., Ltd., of Gateshead, who, on inspection, confirmed my views as to the manipulation of the iron employed. He was good enough to send one of his most experienced workmen to see the gun, who pronounced in the sense stated, remarking that there was a considerable percentage of copper in the mixture.

The length of the gun without the tail-piece, which is broken off short, is nearly 8 feet 2 inches; length of chamber,  $8\frac{1}{4}$  inches and width about 5 inches. The opening at the muzzle is very large, partly, no doubt, increased by corrosion, but it was wide originally with a view to the missiles, which were probably nails or pieces of iron, spreading out like the buckshot from a blunderbuss of the eighteenth century; the diameter of the barrel next the chamber is very much smaller, being about 2 inches. The bottom of the chamber is out and the walls are about an inch thick. Guns were not cast in England, as far as is known, before the sixteenth century, but this looks like a Flemish gun of the *veuglaire* type and dates probably

<sup>118</sup> Sykes's *Local Records*, vol. i. p. 100.

<sup>119</sup> Appendix, No. 42.

somewhat earlier. The piece was sent to our society by the authorities of the Royal Arsenal at Woolwich in exchange for a gun presented to us by Mr. Joseph Price of Gateshead, in 1835. The gun given to us by Mr. Price is now in the Rotunda at Woolwich. It is of wrought iron and of comparatively late date. Calibre, 4 inches ; length, 4 feet 4 inches.

#### GUNS FROM CHINA.

The swivel gun was presented to the society by Captain Coulson, who brought it with him from China. I think it is called a *jing il*. It is a breech-loader, socked and shouldered in a wooden stock, working on a swivel something in the style of the sporting duck gun, and it greatly resembles sixteenth century specimens of this style of gun which may be seen in many collections, both at home and abroad. The length is about 8 feet, thus approximately divided—barrel, 4 feet ; chamber, 17 inches ; and tail portion, 2 feet 7 inches. The calibre is about an inch. A swivel serpentine, strengthened by 25 rings shrunk on. Calibre  $1\frac{1}{2}$  inch. A cannon with 2 rings for haulage. Calibre,  $2\frac{1}{2}$  inches ; length, about 3 feet. It seems to be of no great antiquity. The serpentine and cannon with rings were presented by Mr. G. Rippon.<sup>120</sup> They were captured at Chusan. Like most guns brought from China these pieces, with the exception, perhaps, of the last mentioned, have a European aspect and really one cannot resist the impression that they came originally from Europe.

The gun in the guard-room is of no great antiquity. It has trunnions and cascabel ; calibre,  $3\frac{1}{4}$  inches ; length, about 6 feet. The piece came from China but would appear to be of European make.

The ten pieces on the battlements are ship guns, probably dating from the first half of the eighteenth century ; calibre, about 5 inches. They were placed on the battlements by the Newcastle corporation before our society had possession of the castle, for the purpose of being fired on occasions of public rejoicing. I believe they were last discharged when her late majesty queen Victoria declared the High Level bridge open for traffic in 1849.

Charles VIII. of France entered Italy in 1494, with a train of

<sup>120</sup> *Arch. Ael.*, new series, vol. i. p. ix.

brass cannon,<sup>121</sup> drawn by horses ; while in the opposing Italian host oxen were used for the purpose. Favé states that Charles's guns for besieging fortresses were so dilatory that the besieged had time to repair the damage caused by each shot before another could be delivered.

At this time Italian ordnance consisted of *bombardes, mortiers, comunas, cortanas, passa volante, basilisk, cerbatanas,* and *espingardes*, ranging from 300 down to ten pounders.

The elbow-mortar, used in Italy early in the fifteenth century, was a tube fixed at right angles to another on a horizontal piece of wood. It was one of the attempts made with a view to obtaining a greater rapidity of fire ; but like many others it was soon cast aside.<sup>122</sup>

The *Orgue*, the *Todtenorgel* of the Germans, so named from the barrels being placed in rows, like the pipes of an organ, was invented about the middle of the fifteenth century ; there are examples with forty barrels, and even many more. This piece is the prototype of the mitrailleuse, and of the Gatling gun. A very early example may be seen at Sigmaringen,<sup>123</sup> with its two-wheeled carriage, and others are at Berlin. There are a good many specimens preserved,<sup>124</sup> which vary very much in size ; some are very small hand weapons, prototypes of the revolver, of which an example is at Woolwich.

Howitzers, for the discharge of hollow balls, came into use in England during the second half of the sixteenth century ; and petards appeared in the Netherlands a little earlier.

The connecting link between artillery and hand guns is to be found in a weapon served by two or three men, used from the ramparts, and also with a stand in the field, called *harquebutt à chroche*. An inventory of arms and armour in the tower, and at Greenwich, mentions *Hagbusshes a croke of brass ij ; Hagbusshes a croke of irone, oone* : and among the ordnance scheduled in the Tower inventory of 1559, occurs the item 'harquebutts à chroche, 80.' The harquebus, or *hakenbüsche*, would appear to have derived its

<sup>121</sup> *Histoire et Tactique des Trois Armes.*

<sup>122</sup> Mr. Grose in his work on *Military Antiquities*, vol. i. p. 398, gives a drawing of an elbow-mortar, apparently taken from the *Institutionum reipublicae militaris, etc.*, by Nicolai Mareschalchi (Rostock, 1515).

<sup>123</sup> First half of the fifteenth century.

<sup>124</sup> One with forty-two barrels is in the arsenal at Soleure.

name from *hac* or *haken*, a spur (attached to the underside of the weapon for resting against a rampart or a stand), and *büchse*, a gun. Several of these weapons may be seen in the Rotunda collection at Woolwich. Other specimens are noticed in the appendix to these notes.<sup>125</sup>

Rifled cannon, a principle, I believe, first applied in Germany, were introduced early in the sixteenth century. Examples of that period may be seen at the *Zeughaus*, Berlin; and also in the museums of Nuremburg, the Hague, and Zurich. Benjamin Robins, who published his *New Principles of Gunnery* in 1742, is often credited with this invention.<sup>126</sup>

Many bronze and iron cannon were cast throughout the fifteenth century, notably in Italy, Flanders, France; and in Germany also, as instanced by the fine gun at the Invalides, Paris, cast by Georg Endorfer, inscribed with the year 1404. Jaques Dehornes began to cast cannon at Malines, in 1420;<sup>127</sup> and the arsenal at Bale possesses a fine cannon, with trunnions, cast in bronze, bearing the inscription *Jehann de Malines, ma fayt lan mcccclxxiiii*, and the arms of Burgundy. The length of this piece is 2m. 520; weight, 2,000 liv.; and calibre 0m. 220. The diameter of the projectile is 200 m/m; and weight 20 livres; charge of powder, 4½ liv., occupying  $\frac{3}{5}$  of the capacity of the chamber. Fig. G is a drawing of this cannon.

It would appear that the first mention of any guns cast in England is in the century following, when:—

“Master Hogge, and his man John,  
They did cast the first can-non.”<sup>128</sup>

This is stated to have taken place at Buxted, Sussex, in 1543; doubtless the place a few miles from Lewes, referred to by a writer in *Archaeologia*, vol. x. p. 472; who remarks: ‘where it has always been understood the first guns were made in England.’ The writer of the notes in question gives a drawing of an early cannon, as probably having been made at the Buxted furnaces. The gun is

<sup>125</sup> Nos. 35 and 48.

<sup>126</sup> Robins reduced the practice of gunnery to a science, and he was the inventor of the ballistic pendulum.

<sup>127</sup> *Chronycke van Mechelen*.

<sup>128</sup> *Archaeologia*, vol. xxxvii. p. 483.

represented as of wrought-iron longitudinal bars, strengthened with rings, without trunnions; and it is still fastened to an ancient wooden stand. The bombard at Eridge Green, in 1768, was fired on occasions of rejoicings. It would seem to have been of early fifteenth century date. Viscount Dillon, P.S.A., in his notes in *Archaeologia*, vol. li. pp. 167-172, on 'A Letter of Sir Henry Lee, 1590, on the trial of Iron for Armour,' mentions that a payment occurs in September, 1516, of £33 6s. 8d. to John Rutter of London, for 'hurts and damages by him sustained in a tenement to him belonging wherein the king's great gun, the 'Basiliscus' was cast, and for rent;' and that in 1532, Carlo Capello, the Venetian, writes that Henry 'visited the Tower daily to hasten the works going on there, and was founding cannon.'

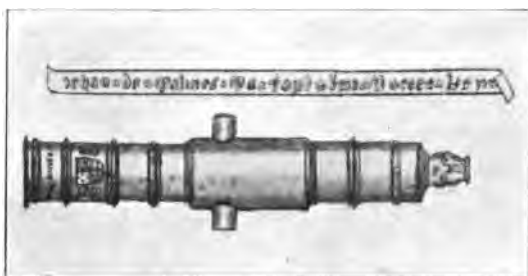


FIG. G.

In regard to gunpowder, an indenture, already referred to, as between John Starlyng and Helmyng Legat, dating in the twelfth year of the reign of Edward III. (1338), schedules *un petit barrell de gonpouder le quart' plein*.<sup>129</sup> Reference has been made in these pages to gunpowder, the first name it appears to have borne in England, as having been manufactured by Thomas de Roldeston for Edward III. In a *Book of Accounts of the King's Chamber* from 1344 to 1347, deposited among the records of the exchequer, the following entry occurs:—*Eidem Thomae super facturam pulveris pro ingeniis, et emendatione diversarum armaturarum, xl. sol.*<sup>130</sup>

<sup>129</sup> Sir N. H. Nicolas's *Hist. Royal Navy*, London, 1847.

<sup>130</sup> In Mr. Joseph Hunter's 'Proofs of the Early Use of Gunpowder in the English Army,' *Archaeologia*, vol. xxxii. p. 381.

There are also entries in the accounts for quick-sulphur<sup>131</sup> and saltpetre, costing eightpence and one shilling and sixpence per lb. respectively, though none appears for charcoal,<sup>132</sup> but in 1369 an entry of six pounds of sea-coal occurs in the *King's Wardrobe Account* in connexion with sulphur and saltpetre, as if coal, called sea-coal then and much later, could be used as a substitute for charcoal in the making of gunpowder; close to this entry eighty-four pounds of gunpowder are mentioned. A *Tower Survey* of 1559 schedules 'salt petre, brimstone and coal powder to make powder.'

Some entries in the *Pipe Rolls of the Exchequer* of 1351 have been already given in these notes, and gunpowder is twice mentioned among them. It would appear that the ingredients saltpetre and sulphur were usually kept separately, ready to be mixed together when the completed compound was required for use, and that the charcoal was made when wanted. The ingredients were first separately weighed and then pounded together in a pestle and mortar, and an *Account of the King's Chamber* of 1374 mentions scales, brass mortars and iron pestles.

John Anderne, in his treatise *Practica, temp. Edward III.*, gives the following recipe:—*Pour faire un fewe volant: Prenez j lib. de soufre vif, de charbones de sauz ij lib., de saltpetre vj lib.*,<sup>133</sup> which is the Marcus Graecus compound over again, viz.: '*R. lib. i. sulphuris vivi, lib. ii. carbonis salicis, salis petrose vi. libras.* A certain quantity to be put into a long, narrow and well-compacted cover, and then discharged into the air.' This mixture is much superior in strength to the gunpowder used for cannon in the fourteenth century, which is said to have consisted of equal parts of the three ingredients mentioned,<sup>134</sup> and it would seem that the Marcus Graecus mixture of 846 A.D., well known as it must have been in the reign of Edward III. from the fact of its having been quoted by Anderne as well as by Roger Bacon and Ferrarius, was too strong for the ill-constructed ordnance of the period, and, in consequence, a less proportion of

<sup>131</sup> Not the sublimate, commonly called 'flowers of sulphur.'

<sup>132</sup> Charcoal and saltpetre in combination form a more or less powerful mixture, and the addition of sulphur is not absolutely indispensable for the making of an explosive powder.

<sup>133</sup> *Sloane MSS.* 335, 791.

<sup>134</sup> As given by Peter Whitehorne in his book printed in London in 1573.

saltpetre was used in the powder. Roger Bacon even suggests the use of gunpowder for warlike purposes. It would appear to have increased in strength towards the last quarter of the century, for the *Wardrobe Account*, 1372-1374, gives 320 lbs. saltpetre and 107 lbs. sulphur in connexion with the service of certain guns, and this is practically three parts to one. The cost of saltpetre in 1350 was about 3s. 6d. per lb., and sulphur about 2s. 7d., that is reckoning the *ecu* as valued at, say, about 14s.<sup>135</sup> An item is given, under the year 1433, in Nicolas's *Privy Council Proceedings*, vol. v. :—'Be there made a privy seal to Gilbert Parr, master of the king's ordinance of my lord of Somerset, 4,000 lbs. of saltpetre, 3,000 lbs. sulphur.'

Early in the fifteenth century the proportion of saltpetre had certainly risen to three, with two each of the other ingredients ; and by the middle of the sixteenth century the proportions for cannon were four, one, and one ; and those in a mixture made for hand guns, eighteen, three, and two, of saltpetre, charcoal and sulphur respectively.<sup>136</sup> Benjamin Robins says that a similar mixture was in use in his day, while towards the end of the century it had altered, viz., to six parts of saltpetre and one each of sulphur and charcoal, practically the same as the composition of Marcus Græcus in 846, reproduced by Roger Bacon about 1260, and by Anderne in his treatise *Practica, temp. Edward III.* It would seem therefore that the strength of the mixture used was mainly regulated by the ability of ordnance to withstand the strain. The English mixture of recent times contains seventy-five parts of saltpetre, fifteen of charcoal, and ten of sulphur, respectively. In judging these comparisons we must not, however, overlook the fact that very much depended on the purity of the saltpetre used, which ought to contain fifty-four parts of nitric acid and forty-six parts of potash, and we have no means of knowing the analysis of the saltpetre employed in the middle ages, nor even during the renaissance. The quality of the charcoal greatly affected the rate of combustion and we have seen that sea-coal was sometimes used as a substitute. The charcoal made from dogwood was considered the best for powder for handguns, while that from the willow or alder was preferred for ordnance, the

<sup>135</sup> *Etudes*, tome iii. p. 89.

<sup>136</sup> Tartaglia, *Quaesiti i Inventioni diversa*, Venice, 1546.

former being much more violent in its action than the latter.<sup>137</sup> Gunpowder bought in Spain in 1512 cost 3½d. and 4d. per pound, and we may perhaps infer from the large quantities purchased abroad, either that the quality produced on the continent was better, as it certainly was far cheaper, than that made in England, or that we were unable to make enough for our requirements in this country. Camden states in his *Life of Queen Elizabeth* that she was the first monarch to make powder in England 'that she might not pray and pay for it also to her neighbours.' A royal licence to erect powder mills in England was granted to John Evelyn in 1590. A MS. account of the Merchant Tailors company schedules gunpowder as costing a shilling a pound in 1549. Carlo Capello, the Venetian, states that king Henry VIII. made gunpowder at the Tower in 1532, but we do not know whether it was granulated or not. It certainly became so somewhat later, as shown in a *Tower Survey* of 1559; and the fine dust, divided from the projectile by a wooden wad, was replaced by coarse and fine grained powder, made for charging and priming respectively, 'Serpentine, grosse corne and fine corne' for ordnance. The entry in the *Tower Survey* of 1559 runs:—'800 lbs. of serpentine powder at 8d. per lb. and 475 lbs. of corne powder at 10d. per lb.,' delivered by Anthony Bukman and Edward Castelyn of London, merchants.<sup>138</sup>

The size and shape of the granulation exercised an important influence on the explosiveness of the powder and therefore on the quantity for a charge; the combustion of the grains, though apparently simultaneous, is in fact gradual. In the case of very small grained powder, in consequence of the lower rate of the combustion from grain to grain by reason of the interstices between the grains being so small, a considerable part of the powder would be blown out of the gun unignited, and much less gas would consequently be generated for the propulsion of the projectile, and its velocity proportionately reduced.

An old treatise of *Canonerie*, of unknown date, printed in Paris in 1561, states that the charge of powder was equivalent to occupying about two-thirds of the barrel.<sup>139</sup> Various substances were often added

<sup>137</sup> Robins, in a paper read before the Royal Society in 1743.

<sup>138</sup> The same people delivered 28 brass cannons with the powder and it would seem that they were merchants importing from abroad.

<sup>139</sup> *Archaeological Journal*, vol. x., p. 31.



to the three principal ingredients with the idea of improving the mixture, such as quick-silver, various salts, alum, arsenic, camphor, amber, and realgar,<sup>140</sup> brandy, vinegar. Distilled water of orange skins was used for watering the mixture. When coal-dust was used instead of charcoal a distillation of fish-paste was added.

It is stated in the *Etudes* that the brothers Bureau were the first to use iron instead of stone for cannon-balls early in the fifteenth century, but there was nothing new in the use of metal balls at that time, for instances of their employment are recorded at a much earlier date. They were first of wrought-iron or lead, but later of cast-iron or bronze. Sometimes, from motives of economy, a combination of stone and lead was employed. The change from stone to iron was an important one in the reduction in the size of projectiles and in the calibre and weight of the guns, which when thus reduced became more efficient in action and more easily transportable, having increased velocity and diminished mass. Metal balls were not so liable to fracture as those of stone. They did not come into general use before late in the fifteenth century.

Probably the earliest reference to iron shot is to be found in the passage in the archives of Florence of 1324-1326, already referred to, and a distinct allusion to balls of iron and of lead occurs in the *Practica* of John Anderne, *temp.* Edward III.:—*C'est poudre vault à gettere pelotes de fer, ou de plom ou d'areyne, ove un instrument qe l'em appelle gonne.*<sup>141</sup> Balls of lead are referred to in a document of 1345<sup>142</sup> quoted in the *Etudes*. Moulds (*formes*) of laton, iron ladles, and pincers often appear in accounts. The *Pipe Rolls of the Exchequer* of 1351 mention leaden balls. Small cannon balls were cast by Johann von Arau at Augsburg in 1372, and by Ulrich Becham at Memmingham in 1388. Mention of cast-iron balls occurs in the Swiss records of 1495-1499.<sup>143</sup>

Favé, quoting from the accounts of the dukes of Burgundy, mentions, under the year 1451, that a waggon, drawn by six horses, conveyed three stone shot from Namur to Luxemburg; each weighing about 900 livres. At this period the weight of cannon in relation to

<sup>140</sup> Red sulphuret of arsenic.

<sup>141</sup> *Sloane MSS.* 335, 795.

<sup>142</sup> In the National Library, Paris.

<sup>143</sup> *Archives, etc., du Canton de Freibourg*, 1900.

their projectiles varied greatly. The proportion was more generally about 50 to 1 ; but it sometimes went down to as low as 25 to 1.

The invention of red-hot shot is often ascribed to Franz von Sickingen in 1525, but they were used as early as 1452, when the Gantois besieged Oudenarde.<sup>144</sup> The *Tower Return* of 1559 schedules 'cannon shot, cross-barred shot, and shot of stone,' and an inventory of the shot carried by the 'Eliza Bonadventure,' of 1575, schedules 'cross-barred shot, jointed shot, bare shotte of yron, hollow shot of lead, and stone shotte polished, and for fowlers roughe.' Iron balls were sometimes covered with lead, presumably to minimize the damage caused to the inner tube of the gun by friction. By this time the great majority of shot in use was made of iron ; still stone balls were retained for certain classes of guns, such as fowlers and peteraras. A return of shot in the Tower and aboard her majesty's ships, of the year 1578, taken from a curious collection of papers published by Francis Peck, M.A., in 1732, is as follows :—

*In the Tower.*

Cross-backed and iron shot, round and of several heights	...	47,000
Stone shot for cannon pieces, port pieces and fowlers	... ..	45,000

*Aboard the Ships.*

Iron shot	... ..	100,000
Stone shot	... ..	1,300

The whole amounting in money value to £5,475.<sup>145</sup>

Nails and pieces of chain were sometimes employed as projectiles, but they often blocked the gun or caused it to burst. Boxes containing two or three hundred bullets, and missiles of an incendiary nature were also used in the sixteenth century.

Grenades are referred to in the Arabian treatise of the thirteenth century, written by Hassan Abrammah, wherein are mentioned balls of pottery or glass filled with a fiery mixture and thrown by hand ; and fire pots were employed at the siege of Harfleur in 1415. Valturinus, writing in 1472, gives a figure of a hinged shell, but it is uncertain whether this hollow ball was made to contain Greek fire for incendiary purposes or was filled with an explosive mixture for bursting the shell itself into fragments. This latter supposition would seem to be the most likely. Père Daniel, writing in 1537, mentions grenades.

<sup>144</sup> *Chron. de S. de Lalain*, chap. 81.

<sup>145</sup> *Proceedings of the R. A. Institution*, vol. ii. p. 359.

In Stowe's *Annales* there is a reference to great preparations made in 1543 'for a war with *Fraunce*, and that one Peter Baud, a Frenchman borne, a maker of Ordnance, and one other alien called Peter van Collen, a gunsmith, both the king's feed men, devised certain mortars, being at the mouth from eleven inches unto nineteen inches wide, for hollow cast yron shot, to be stuffed with fire-worke or wild fire, whereof the *bigger sorte* had screws of yron to receive a match to carry fire kindled, that the fier-work might be set on fire *for to break in small pieces the same hollow shot*, whereof the smallest piece hitting any man would kill or spoyle him.' Here we have the mortar and bomb. The *bigger sorte* discharged a shell upwards of a foot and a half in diameter.<sup>146</sup> The invention of the bomb is generally attributed to an artisan of Venloo in 1588, and Strada mentions this. It evidently existed, however, in one form or other, much earlier.

There is a hand mortar at Woolwich for discharging grenades from the breast or shoulder, probably dating from about the end of the sixteenth century, fired by a wheel-lock, calibre 2 $\frac{3}{8}$  in., length 2 $\frac{1}{2}$  ft.; and one formerly at Goodrich court, figured by Skelton, which has both a match-lock and a wheel-lock; indeed, weapons with the two locks are by no means rare. All the gun-locks we are accustomed to associate with handguns were sometimes used with ordnance; they were fixed to the vent-field by pins passing laterally through it or by side-screws. Père Daniel states that a petard was used by Henry IV. of France in 1579.<sup>147</sup>

The art of the smith having made considerable progress, much better results were obtained. Long serpent guns were made with the idea of materially increasing the range, but as experience failed to bear this out, shorter pieces were reverted to. It must be borne in mind that improvements in ordnance, like changes in dress and in armour, took some time to travel, and the same standard of progress did not prevail in all countries alike; still, the constant state of warfare and preparations for war that characterised fourteenth and fifteenth century times, and even later, did much for a rapid assimilation of results among the nations of England, France, Italy, Flanders, Germany and Spain.

<sup>146</sup> *Archaeological Journal*, vol. xxiii.

<sup>147</sup> Grose, *The English Army*, etc., vol. i. p. 409.

It is impossible to classify, or even to identify, all the descriptions of cannon mentioned, for the names when referred to in chronicles are so often mixed up with those of mechanical engines, and the difficulty is intensified by reason of the practice of giving the guns nicknames, such as 'the Dirty Maid,' and 'Mons Meg;' and such guns are often alluded to in the records of the period by their popular *sobriquets*. In England we had bombards, mortars, curtalles, serpentine, slyngs,<sup>148</sup> culverins, demi-culverins, fowlers, falcons, falconets, and sacres,<sup>149</sup> the last three kinds mentioned being field guns; two, four, six and a half, and eight pounders; the heavier ordnance being siege and position pieces. In France the varieties were fewer in number: *bombards*, *basilisks*, *spirales*, *veuglairs*,<sup>150</sup> *mortiers*, *bombardelles*, *crapaudaux*,<sup>151</sup> etc., were the designations of various pieces of artillery.

The ordnance books of Maximilian I., mention the following varieties, viz:—*scharfmetzen*, *basiliskus*, *vierteilbüchsen*, *singerinen*, *grosse schlangen*, *feld*, or *mittel*, *schlangen*, *haufnützen*, *falconetlein*, *kammerschlangen*, *dorndrell* or *terrasbüchse*, *mörser* and *kleine mörser* (*lerchlein*), etc. No calibres are given. So many pieces of different weights and calibres, placed on clumsy carriages, made any effective employment of ordnance, in the open country, very difficult, and in fact it long continued a mere adjunct, rather than a component part of an army in the field. The carriages had no gun limbers, they were usually two wheeled, with wooden axle-trees, and were subject to frequent mishaps and breaks-down. The ammunition, the implements, and the tools, were carried in separate carriages. It was, therefore, only slowly and laboriously that the artillery train could follow the movements of an army. The gun was washed out with a mixture of water and vinegar after each shot; and eight to ten shots were fired in an hour.

It was in Germany, during the reign of Maximilian I. (1493-1519), when the most surprizing developments in artillery, and what was of scarcely less importance, the improvement of *personnel*, and means of transport, took place, under the guidance of the master of ordnance, Bartholmaus Freysleben. Maximilian and his advisers assimilated, and improved upon everything new from abroad, and especially from Italy, at that time constantly engaged in warfare.

<sup>148</sup> Snakes.

<sup>149</sup> Hawks.

<sup>150</sup> Fowlers, see Appendix, Nos. 20 and 37.

<sup>151</sup> Appendix, No. 39. *Crapaud*, a toad.

Field ordnance, as well as gun carriages, began to be made much lighter, and more mobile in every way ; horses were more generally used, especially for field guns, instead of oxen ; indeed the German short serpent gun was now drawn by a single horse.

Kings Henry VIII. and Francis I. also exhibited great energy in this direction, giving personal attention to details and improvements in ordnance, as well as in weapons and armour generally ; indeed much was achieved during the period covered by the reigns of these three remarkable monarchs, animated as they were by the rising tide of the renaissance, which made itself felt in all directions.

Tartaglia,<sup>152</sup> a distinguished Italian mathematician, who wrote on gunnery, but without any practical knowledge of the subject, gives tables of the cannon used in the reign of Henry VIII. He defines the laws regulating the flight of projectiles, and devised the gunners' quadrant. Tartaglia dedicated his *Three Books of Colloquies concerning the Arts of Shooting* to king Henry ; and made the first practical attempt to base the theory and practice of gunnery on certain definite principles. He pointed out that a shot on leaving the gun could not proceed any distance in a straight line, and that the higher the velocity of the projectile the flatter the trajectory.

Many of the improvements and inventions of this period, some of them obviously tentative, were for long supposed to have been the work of very much later times ; but a number of the guns preserved got no further than the experimental stage.

Very large pieces, for fortress work and position purposes, continued in use over this period, one the 'Basiliscus,' made by Humphrey Walker for king Henry VIII.,<sup>153</sup> discharged a shot 75 pounds in weight. Sir Robert Wingfield, writing to king Henry from Vienna in 1515, says : 'The Emperor (Maximilian I.) gave the king of Bohemia a bumbard which was carried to the water by thirty horses,'<sup>154</sup> and the Venetian ambassador reports to his government that king Henry possessed a bombarde, *colbren* or *postell*, as requiring thirty-six to forty horses, and sixty to eighty labourers assisting them, to

<sup>152</sup> *La Nuova Scientia inventa* in 1537 ; *Quesiti e Inventioni diverse*, Venice, written 1546.

<sup>153</sup> *Archæologia*, vol. li. p. 227.

<sup>154</sup> *Archæological Journal*, vol. lix. p. 78.

draw it.<sup>155</sup> A contemporary account of the battle of Flodden (9th September 1513), states that the Scottish army 'was enclosed in three parties, with thre great mountaynes soe that ther was noe passage nor entre vnto hym but oon waye wher was laied marvelous and great ordnance of gones, that is to wit, v great curtalles, ij great colveryns, iiij sacres, and vi great serpentynes, as goodly gones as have bene sene in any realme, and besides there wer othir dyvers small ordenances.'<sup>156</sup> The guns now in the Tower probably include some of these pieces. In the same year the complement of artillery for the army for France was five hundred guns.<sup>157</sup>

Early in the reign of Henry VIII. large quantities of ordnance were being drawn from abroad, and especially from Flanders, and many wrought-iron and brass guns, varying from 1,170 to 3,979 pounds, were ordered from maitre Hans Van Neurwerk, surnamed Poppen Ruyter, of Malines, in 1512, for the French war, and among them were 'the twelve apostles,' pieces of great calibre. The weight of the shot for ordnance of about this time was as follows: 'Each Apostle, twenty pounds; Curtow, sixty pounds; Culverin, twenty pounds; Lizard, twelve pounds; Bombard, two hundred and sixty pounds; Minion, eight pounds; Potgun, eight pounds.'<sup>158</sup> Later, king Henry would seem to have sought the assistance of foreign artisans for working in England in this branch as well as in that for forging body armour, for we find the names mentioned of Peter Baude,<sup>159</sup> a Frenchman 'borne,' casting guns at Houndsditch in 1525; Peter von Köln<sup>160</sup> and Franciscus Arcanus from Italy<sup>161</sup>; Englishmen like John, Robert and Thomas Owen,<sup>162</sup> Ralph Hogge, Master Hugget, Humphrey Walker and others were making cannon in Henry's reign, and the king was having ordnance founded in the Tower itself.

The importation of cannon from abroad continued, however, for

<sup>155</sup> *Archaeologia*, vol. li. p. 225.

<sup>156</sup> *Proceedings of the Society of Antiquaries of Scotland*, vol. vii. p. 146.

<sup>157</sup> *Archaeological Journal*, vol. lix. p. 77.

<sup>158</sup> *Archaeologia*, vol. li. p. 262.

<sup>159</sup> A gun in the Tower is inscribed with the date 1520; and 'Petrus Baude Gallus, operis artifex.'

<sup>160</sup> The Peter van Cullen mentioned in Stowe's *Annales*.

<sup>161</sup> Appendix, Nos. 7 and 9.

<sup>162</sup> Appendix, Nos. 8 and 12.

in 1545 strong remonstrances were addressed by the French ambassador to the emperor Charles V., against the succours of arms and ammunition that were being rendered to England from Flanders.

Early in the reign of the emperor Charles V., Georg Löffler of Augsburg, did much to reduce the construction of ordnance to a system, and he and Georg Hartmann of Nuremberg instituted a standard for three sizes of larger guns. Cannon were 40 and 12; 'schlangen,' 24, 12, and 6; and 'falkens' 6½ and 3 pounders respectively, the weight being reckoned on a stone basis; and the ranges were determined. Charles had a dozen cannon cast at Malaga in 1533: length, 18 calibres; weight about 33 cwts.; thickness of walls was  $\frac{3}{8}$  of the calibre, at the barrel mouth;  $\frac{5}{8}$  at the first reinforce; and  $\frac{7}{8}$  at the second reinforce; the position of the trunnions was fixed at  $\frac{1}{3}$  of the total length from behind. Diego Ufano<sup>163</sup> gives the particulars and measurements of the cannon, and he lays down the proportion of guns to an army, viz.: 24 heavy and 6 light guns to a corps of 6000 horse and 34,000 foot. Like the guns ordered by Henry VIII. from Poppen Ruyter of Malines, these Malaga cannon were named 'the twelve apostles.'

The Brander MS. is an inventory, taken at the beginning of the reign of Edward VI., of the ordnance and munition at the Tower, the ordnance and munition at various 'bulwerks' and castles in England, and the English possessions in France, the ships and their armament, the armoury at Westminster, and the armoury at Greenwich. Among the bulwerks and castles are mentioned Wark, Holy Island, Alnwick, Berwick, and Newcastle. The MS. also schedules jewels, glass, plate, etc. The ordnance and munition is that collected during the long and epoch-making reign of Henry VIII. This MS. was presented to the Society of Antiquaries of London by Gustavus Brander, esquire, F.S.A., in 1775. Selections are printed with viscount Dillon's notes in 'Arms and Armour at Westminster, the Tower, and Greenwich, 1547,'<sup>164</sup> and among these is the 'Ordinaunce Artillery' in the Tower of London, consisting of 64 guns of brass, and 351 of iron; and concerning the various classes of these some remarks are made in

<sup>163</sup> *Tratado dela artilleria, yuso della platicado, en las guerras de Flandes*, Brussels, 1613.

<sup>164</sup> *Archæologia*, vol. li. p. 218.

*Archæologia*. Some of the guns mentioned in the inventory of 1547 have been identified with those now in the Tower and at Woolwich, and this would doubtless have been the case with a greater number but for the damage wrought by the Tower fire in 1841. The following passage has been copied from lord Dillon's notes :—<sup>165</sup>

" In Elizabeth's reign, according to sir William Monson,

The cannon	weighed 6000 lbs., with a shot of 60 lbs.
„ demy-cannon	„ 4000 „ „ „ 33½ „
„ culverine	„ 4500 „ „ „ 17½ „
„ sacre	„ 1400 „ „ „ 5½ „
„ minion	„ 1000 „ „ „ 4 „
„ fawcon	„ 660 „ „ „ 2 „
„ demy-culverine	„ 3400 „ „ „ 9½ „
„ fawconnet	„ 500 „ „ „ 1½ „
„ robynett	„ 300 „ „ „ ½ „

Towards the middle of the sixteenth century, the French artillery, the most simple in Europe, consisted of six different calibres, the projectiles of which weighed, respectively, 33½ lbs., 16½ lbs., 8½ lbs., 2½ lbs., 1½ lbs., and three 'quartenons.'<sup>166</sup>

The following account of the ordnance in the Tower, taken on 13th September, 1559, appears in *Archæologia*, vol. xxxvii. page 480:—  
'The store of all sorts and kinds of ordnance in the Tower, and a memorial of what was required for the next year':—

## BRASSE ORDNANCE FOR THE FIELD.

THE STORE.	THE PROVISIONS TO BE NEW BOUGHT.
Canons mounted ... .. 7	To be new made ... .. 13
Demi canons <sup>167</sup> ... .. 13	„ „ ... .. 4
Culverings ... .. 14	„ „ ... .. <i>nil.</i>
Demy culveryns ... .. 13	„ „ ... .. 7
Sacres ... .. 38	} „ „ ... .. <i>nil.</i>
Mynions ... .. 7	
Fawcons ... .. 30	
Fawconetts ... .. 5	
Connemorters ... .. 2	
Baces ... .. 4	
A piece shooting 7 bullets <sup>168</sup> ... 1	
	Total required 24

134 pieces

Total required 24

<sup>165</sup> Page 262, note.

<sup>166</sup> United Service Journal, 1853, page 577.

<sup>167</sup> A brass demi-cannon, culverin, sacre, and minion may be seen at the Rotunda, Woolwich. See Appendix, Nos. 8, 9, 10, 13.

<sup>168</sup> Probably an orgue.



Eleven pairs of horses were required for a field cannon, and seven or eight pairs for a demi-cannon.

It would seem that the calibres of the guns did not differ greatly from the cast S.B. ordnance of the first quarter of the nineteenth century.

The casting and making of the 24 new pieces of brass would cost £483 10s.

BRASS ORDNANCE, MOUNTED FOR THE 'ELIZABETH JONAS,'  
AND OTHER SHIPS.

'Demi-canons, 8; canons pereares, 6; culverings, 3; demi-culverings, 5; fawcons, 2; to be new made, *nil*.'

CAST-IRON ORDNANCE.

'Demi-canons, 2; culverings, 2; demi-culverings, 12; sacres, 8; to be new made, 10; mortar piece, 1; fawcons, *nil*; to be new made, 12.'

The estimated cost for the 22 new pieces was £128. The cast iron cost only 10s. per cwt., while the brass was three pounds and ten shillings per cwt.; and it was on this account that one half of the new ordnance was proposed to be made of cast iron.

'Bombardes, 3; porte peces, 66; slings, 6; <sup>169</sup> demi-slings, 36'; no new required.

FORGED ORDNANCE OF IRON.

'Quarter-slings, 6; fowlers, 43; baces, 137; harquebutts a croche, 80; harleshotte pieces, 80; harleshot pieces upon mytches, 5'; no new required.

The armament of the 'Eliza Bonadventure' is shown in the *Surveye of the Queene her Ma<sup>ty</sup>s Shippes taken and viewed by The Officer of Th'ordnance*, 25 Jan., 1575,<sup>170</sup> is as follows, viz.:—

2 demi-canons.	2 fawcons.
2 canon piriars.	1 fowler, with two chambers.
6 culveringes.	3 port-peece of forged iron, with two chambers apeece.
10 demi-culveringes.	4 fowlers of forged iron, with like chambers.
8 sacres.	
2 minions.	

In all 40 pieces of ordnance.

<sup>169</sup> Serpent guns.

<sup>170</sup> *Archaeologia*, vol. xxx. p. 324.

For these guns there was a great variety of shot on board, 868 balls in all, of which 759, 37, and 72 of iron, lead, and stone respectively, a tolerably clear indication that stone shot was rapidly falling into disuse. The more accurately dressed balls (polished, as it stands in the inventory), were used for the canon piriars, while presumably the coarser balls were for the port-peeses and fowlers (roughe).

Pirier is a name handed down from the mechanical engine *pierrier*, and this kind of cannon impelled its projectile with a low charge of powder, so low, indeed, that these pieces were sometimes fixed as swivel guns without any provision for the recoil. Robynetts, mentioned as late as the reign of queen Elizabeth, afford another instance of this inheritance of names from mechanical engines.

In 1560, there were state armouries at Portsmouth, Southsea castle, Berwick, Hull, and Newcastle-upon-Tyne, besides the tower of London and Greenwich.

The *Kriegsbuch* of Leon Fronsperger,<sup>171</sup> with wood engravings by Jost Amman, gives much information of the German ordnance of his time.

In 1574 the names of English ordnance are commonly<sup>172</sup> :—

Names.	Weight. Lbs.	Diameter. Inches.	Weight of shot. Lbs.	Scores of carriage.	Charge of powder. Lbs.	Height of cullet. Inches.
Robinet ...	200	1¼	1		½	1
Falconet ...	500*	2	2	14	2	1¼
Falcon ...	800*	2½	2½	16	2½	2½
Minion ...	1,100*	3¼	4½	17	4½	3
Sacre ...	1,500*	3½	5	18	5	3¼
Demi-culverin ...	3,000*	4½	9	20	9	4
Culverin ...	4,000*	5½	18	25	18	5¼
Demi-cannon ...	6,000*	6½	30	38	28	6½
Cannon ...	7,000*	8	60	20	44	7¾
E cannon ...	8,000	7	42	20	20	6¾
Basiliske ...	9,000	8¾	60	21	60	8¼

In 1599, according to an ordnance return, those of the above descriptions of guns marked with a star were used in the navy; and besides these were Port-piece hull, and chambers; Fowlers hull, and chambers; besides Curtalls.

<sup>171</sup> Frankfort, 1573.

<sup>172</sup> *Proceedings of the Royal Artillery Institution*, vol. ii. p. 354.

There is another tower inventory of June, 1578.

Cannons, etc., remaining in store	...	...	...	...	104
Brasse ordnance remaining aboarde the shippes	...	...	...	...	504
				M. C. XX.	
. . . . . Amounteth in money					lvij vij iiij vj <sup>li</sup> .

*Shot.* In the Tower :—

Crossebarred and rounde shott of iron of severall heightes	47,000
Stone shott for canon piriers, portpeces, and fowlers	... 4,500

Abord the Shipps :—

Iron shott	... .. 10,000
Stone shot	... .. 1,300
Amountinge in money to the some of 5,475 <sup>li</sup> .	

*Powdre, and Stuffe for Powdre.* In the Tower :—

Corne and serpentine powdre...	... .. 55 lasts
Saltpeter	... .. 10,000 weight
Sulphur	... .. 20,000 "

Aborde :—

Corne and serpentyn powdre, di.	... .. last
Amountinge in money to the some of 6,617 <sup>li</sup> 10 <sup>ss</sup> 17 <sup>3</sup>	

Sir James Turner, writing in *Pallas Armata* in 1670, remarks that a culverin that shot 16 pounds of iron had but a hundred pounds of metal allowed for every pound of her shot, and so she weighed then but 1,600 pounds, but now and long before this, she weighs 4,300 pounds, and consequently hath the allowance of near 270 pounds of metal for every pound of her shot.'

After the close of the sixteenth century, French ordnance, which continued the most simple in Europe, was as follows :—

Description.	Length of gun.		Weight of projectile.	
	Ft.	In.	Lbs.	Oz.
Cannon	10	0	33	8
Culverin	11	0	12	8
Bâtarde	9	6	7	8
Moyenne	8	2	2	12
Fawcon	7	0	1	8
Fawconneau	5	4	0	14 <sup>174</sup>

<sup>173</sup> *The Egerton Papers* (12 Camden Soc. publ.), pp. 68-69.

<sup>174</sup> Errard, *La Fortification*, 1620.

The following table is extracted from a work dedicated to the duke of Buckingham by Robert Norton, engineer and gunner, in the year 1643<sup>176</sup> :—

Names of the pieces.	Height of	Length in	Weight	Weight	Length of
	bore.	diameters.	in metal.	of powder.	the ladles.
	Inches.		Lbs.	Lbs.	Inches.
Cannon of 8 ... ..	8	15	8,000	40	24
Cannon of 7 ... ..	7	16	7,000	25	22
Demi-cannon ... ..	6½	18	6,000	20	21
Culvering ... ..	5½	28	4,500	15	20
Demi-culvering ... ..	4½	32	2,500	9	18
Saker ... ..	3½	36	1,500	5½	16
Minion ... ..	3¼	30	1,200	3	15
Falcon ... ..	2¾	42	700	2½	14
Falconet ... ..	2¼	48	500	1¼	12
Cannon-perior ... ..	9, 10, 12	8	3,500	3, 3½, 4	3
Demi-can, drake ... ..	6½	16	3,000	9	4½
Culvering, drake ... ..	5½	16	2,000	5	4½
Demi-culvering, drake ... ..	4½	16	1,500	3½	4½
Saker, drake ... ..	3½	18	1,200	2	4½

The lighter guns, such as falcons, falconets and sakers, were generally used for field service, while the heavier cannon and culverings were for siege or position purposes.

Specimens of early ordnance may be seen in many of the large collections of arms and armour in Europe ; in England notably in the Tower of London and in the museum of artillery in the Rotunda, Woolwich. The great continental museums and arsenals, such as those at Paris, Vienna, Berlin, Brussels, Dresden, Copenhagen, etc., contain examples of most of the many varieties of cannon of the fourteenth, fifteenth and sixteenth centuries ; and quite a number of the guns taken by the Swiss in their struggle with the Burgundians, under Charles the Bold, may be seen in the museums and at other places in Switzerland.

Some examples of the more distinctive of the earlier guns spread over some of the arsenals and museums of Europe are noticed in the appendix to these notes.

<sup>176</sup> *Minutes of the Proceedings of the Royal Artillery Institution*, vol. ii. p. 373.

## APPENDIX.

## THE MUSEUM OF ARTILLERY IN THE ROTUNDA, WOOLWICH.

1. A wrought-iron *bombard*, said to have been found in the moat at Bodiham castle, Kent. This gun is lined with cast-iron, and probably dates from late in the fourteenth century. The *Official Catalogue*, prepared by order of the Secretary of State for War, under the direction of the Committee of the Royal Artillery Institution, printed in 1889, gives the following particulars: 15 inch bombard, for throwing stone shot of about 160 pounds weight; calibre, 15·1 inches; interior diameter of chamber, 3·4 inches; length of chamber, 14·0 inches; capacity of chamber, about 3·5 pounds; length of chase, 34·0 inches; present weight, 6 hundredweights.

2. Wrought-iron cannon. Length, 24 inches; calibre, about 2 inches. It is without trunnions or cascabel, but has two rings for raising it.

3. Fragments of a *double cannon* were found in the same place as the last mentioned piece; the weapon had probably been originally about 10 feet in length, with a breech in the centre, and a barrel running in two directions; calibre, about 3 inches.

4. Wrought-iron *serpent* gun of the reign of Henry VI. (1422-1461). It is in excellent preservation, with two rings for raising it. Original length, 7 feet 6 inches; calibre, 4·25 inches; weight, 8 hundredweights. This gun affords an early example of trunnions, which are  $3\frac{1}{4}$  inches long and 4 inches in diameter.

5. A breech-loading *peterara* of Edward IV. (1461-1483), made of longitudinal bars of iron, hooped together with iron rings. The chamber with lifting handle is complete. Length, 3 feet; calibre, 2·5 inches; weight, 1 hundredweight 13 pounds.

6. Wrought-iron breech-loading gun and carriage. Recovered in 1836 from the wreck of the 'Mary Rose,' which sank off Spithead in 1545. Original calibre, about 8·0 inches; length, 9 feet 8 inches. The carriage, which is original, is grooved on the under side, to slide on a directing bar.

7. A brass *saker*, of the reign of Henry VIII., with the maker's name, 'Franciscus Arcanus,' inscribed on the chase. The external shape of the gun is twelve-sided. Length, 7 feet 11 inches; calibre, 3·92 inches, or that of a seven-pounder.

8. Another brass *saker* of the same reign, inscribed with the date and names of the makers, 'Ihon and Robert Owyn, bretheryn, made thys sacar, weying 1212. Anno Dni. 1538.' Length, 7 feet 9 inches; calibre, 3·75 inches.

9. A brass *culverin*, 1542, 'Arcanus de Arcanis Cesenen, fecit.' Length, 10 feet 11 inches; calibre, 5·20 inches; weight, 43 hundredweights 25 pounds.

10. A brass *demi-cannon*. Length, 11 feet; calibre, 6·4 inches; a thirty-two pounder.

11. A brass *culverin-bastard*. It is twelve-sided, 8 feet 6 inches long; calibre, 4·56 inches.

12. A brass *cannon royal*, inscribed with the name John Owen. Length, 8 feet 6 inches; calibre 8·54 inches.<sup>176</sup>

<sup>176</sup> Nos. 10, 11, 12, were recovered from the 'Mary Rose.'

13. A brass *minion*, inscribed 'John and Thomas Mayo, brethren, made this pece, Anno Dni, 1554.' Length, 7 feet 6½ inches; calibre, 2·875 inches.

14. A brass *culverin*, inscribed 'Henri Pit made this pece, 1590, No. 4, 18 pr.' Length, 8 feet 6 inches; calibre, 5·57 inches.

15. Two cast-iron guns (1509-1547), both brought from Ireland. Dimensions of both: length, 10 feet; calibre, 6 inches; weight of one, 53 hundredweights 14 pounds, and of the other, 53 hundredweights 6 pounds.

16. A cast-iron gun of the same period, raised out of the Medway near Chatham. Length, 8 feet 9 inches; calibre, about 3·75 inches.

17. A gun formed of a cylinder of copper, surrounded with hempen cord, and enveloped in leather. Length, 6 feet 5 inches; calibre, 2·17; weight, about 1 hundredweight 7 pounds.

LE MUSÉE D'ARTILLERIE, PARIS.

18. Cannon, late fourteenth century; movable chamber; total length, 0·85 m. A tail piece has been nearly rusted away.

19. Cannon, of the beginning of the fifteenth century, of similar type but in better condition. The junctions of the outer covering, which is composed of six hoops, are covered by rings. Calibre, 0·055 m.

20. Veuglaire, first half of fifteenth century, without trunnions. Calibre, 0·182 m. Found in the old fortifications of Rennes.

21. Bombarde, second half of fifteenth century; with trunnions. Chamber, 20 centimètres deep, by 8 and 10 in diameter; barrel composed of 20 to 24 bars, much rusted away.

22. A ship falconet, similar to those in the castle of Newcastle-upon-Tyne.

23. Bronze cannon, of the second half of the fifteenth century; calibre, 0·072 m.

24. Large gun, of the end of the fifteenth century; apparently forged in one piece; calibre, 0·22 m.

25. French cannon, of the second half of the fifteenth century; inscribed as being cast in 1478, by Jehan Chollet, chevalier maître de l'artillerie. The piece has trunnions, and weighs 1,603 kilogrammes; length, 2·24 m.; calibre, 0·245 m.; diameter of trunnions, 0·180 m. It came from the Isle of Rhodes, and bears an Arabic inscription, placed there after the conquest of the island.

26. Serpentine of forged iron, with trunnions; close of the fifteenth century.

27. Hand coulevrine, of the second half of the fifteenth century. It was served by two men, one of whom supports the stock on his shoulder, while the other aims and discharges the piece. It is fixed to a wooden stock, with iron hoops, like a bombardelle. Length, 0·77 m.; calibre, 0·025 m.

28. Coulevrine, of the end of the fifteenth century; length, 1·035 m.

29. Bombarde of bronze, of about the same date, inscribed *Petrus Aubusson, M. Hospitalis Jerusalem*. Weight, 3,325 kilogrammes. The granite shot with the piece is 0·568 m. in diameter.

30. Large coulevrine of the commencement of the sixteenth century. Weight, 3,343 kilogrammes; calibre, 0·165 m.; length, 5·40 m. The ball would weigh 24 to 30 livres.

31. Quarter cannon, of the reign of Francis I.; calibre, 0·18 m.

32. Cannon of same reign; calibre, 0·110 m.

33. Bronze coulevrine of the same reign; calibre, 0·083 m.

34. Bronze fauconneau of the same reign.  
 35. Arquebuse à croc, of iron; end of fifteenth century.  
 36. Bronze bombarde (German); inscribed in German, of which the following is a translation: *My name is Catharine: mistrust thou my contents: I punish injustice. Georg Endorfer cast me. Sigismund, arch-duke of Austria, anno 1404.* Weight, 4,597 kilogrammes; calibre, 0.390 m.; length, 3.65 m. This cannon came from Rhodes. It has handles and an apron over the vent.

## THE PORTE DE HAL MUSKUM AT BRUSSELS.

37. A *Veuglaire*, with chamber; of wrought iron strengthened with rings. Calibre, 0.19 m.; length, 0.74 m. Fifteenth century. The gun-carriage is a reconstruction.

38. A *Bombardelle*. Calibre, 0.13 m.; length, 1.30 m. Fifteenth century. Found at Courtray in 1882, at the demolition of an old bridge.

39. A *Crapaudeau*; muzzle-loader of the first half of the fifteenth century. Calibre 32 mm.; length, 1.03 m. It is a small iron tube, mounted in a thick piece of wood, which stands on a small square block, with side handles for transportation. The mounting is a reconstruction.

40. A *Couleuvrine*, breech-loader, first half of fifteenth century. Calibre, 0.045 m. Found at Luxembourg during the demolition of part of the rampart. It has a ring for hoisting.

41. A *Serpentine*, fifteenth century. Calibre, 0.04 m.; length, 1.38 m. The piece is strengthened with 17 rings. The carriage has been reconstructed from an old print.

42. A *Fauconneau de marine*, early sixteenth century, breech-loader, turns on a swivel. Calibre, 0.035 cm.; length 1.31 cm. The tail is bent, with a knot at the end.

## DAS KÖNIGLICHE ZEUGHAUS ZU BERLIN.

43. A reconstruction from an old drawing of a short bombard of the end of the fourteenth century.

44. A breech-loading, wrought-iron cannon of the fifteenth century, strengthened with 25 iron rings. Present length, 245 cm.; diameter of bore, next the chamber, 6, 5, and near the muzzle, 6 cm. Part of the barrel is fractured, and the breech-block is missing.

45. A cast-iron, breech-loading gun, of early fifteenth century date. Calibre, 15.5 cm.; length, 91 cm.

46. A cast-iron breech-loader, 99 cm. long, with trunnions; fifteenth century.

47. A wrought-iron muzzle-loader, with trunnions; 238 cm. long. Fifteenth century.

48. A *Hakenbüchse*. Total length, 204 cm.; length of barrel, 117 cm.; calibre, 2.8 cm.; fifteenth century.

49. A short *Kammgeschütz*, with carriage; fifteenth century. A great, wrought-iron mortar, strengthened with 14 rings—the first ring carries the trunnions. Calibre, 33 cm.; fifteenth century.

50. Two small, bronze mortars; fifteenth century.

51. An *Orgelgeschütz*, with 5 octagonal barrels; fifteenth century.

52. A *Falconet* by Gregor Loeffler, about 1544; calibre, 7.5 cm.

53. A *Serpentinellen* of 1586, by Hans Christoph Loeffler, 1586.

IN TÓJHUSET, COPENHAGEN.

54. Several Bombardeer or Skjœrmbroekkere, with breech blocks, Skerpentiner or Barser, all early pieces.

55. A Feltslange, 23½ Fod lang; 14-pounder, Danish. Ornamented with the arms of Oldenburg. Further inscribed: 'Antonius Grave tho Oldenborch und Dalmehorst heft mi lote gete'; and an account of Samson's fight with the lion: 'De starcke Samson min Name is Ick schete geweltiglick und kame gewis. Anno Domini MDLVIII Iar. Do got mi Matias van Norenbarch. Dat is var.'

THE ARSENAL, DRESDEN.

56. A Bombard, late fifteenth century; calibre, 14 inches; carriage of later date. It is called, *Die faule Magd*.<sup>177</sup>

THE ROYAL ARMOURY, MADRID.

57. A Dragonneau, cast at Liège in 1503 Double-barrelled breech-loader. A most artistic piece of work.

HERRES MUSEUM, VIENNA.

58. A mortar, first half of fifteenth century. Calibre, 88 cm.  
 59. A mortar, second half of fifteenth century. Calibre, 31 cm.  
 60. Kammerschlange, fifteenth century. Calibre, 14 cm.; length of bore, 470 cm.  
 61. Falconet, early sixteenth century. Calibre, 6·5 cm.; length, 233 cm.  
 62. Small mortars (Böller), cast by Hans Penden, Siegen, 1538.  
 63. Small serpentes (Serpentinleins), by H. Chr. Loeffler, 1579.  
 64. Viertelschlange (Falken). Calibre, 10·5 cm., by H. Chr. Loeffler, 1583.  
 65. Schlange of the Republic of Ragusa, 1505, cast by Johann Baptist von Arbe. Calibre, 13 cm.; length, 449 cm.

<sup>177</sup> The dirty maid.



## II.—LOCAL MUNIMENTS.

BY WILLIAM BROWN, F.S.A., secretary to the Surtees Society  
and to the Yorkshire Archaeological Society.

[Read on the 26th November, 1902.]

The documents here printed, except the first, which was at one time in the possession of Mr. H. C. Abbs, Cleadon House, Sunderland, belong to Mr. W. Grey Robinson, Quedgeley House, Gloucester, by whose permission they are printed. They have come to him with other property from the Middletons of Silksworth. The thanks of the Society are due to Mr. F. W. Dendy and Mr. J. Crawford Hodgson, for help in annotating these charters, and to Mr. W. H. St. John Hope, Assistant Secretary of the Society of Antiquaries of London, for the description of the seals.

I.—1198-1208. Grant by Philip of Poitou, bishop of Durham, to Robert of Langley, of forty acres of the bishop's waste, between Esh and the Deerness, on the east side of the road leading to Rowley. The limits of date of this charter are settled by the appointment of Aimery de Talboys, the bishop's nephew, as archdeacon of Durham in 1198, and the bishop's death in 1208. The present vicar of Esh, the rev. W. Stuart White, who has kindly assisted me with this charter, writes : ' I am afraid that I am not able to identify the forty acres ; but, it seems probable that they were somewhere near to the small estate owned by colonel Edward Leadbitter-Smith, at Flass, which was formerly the property of old lady Peat. At the date of the charter the Esh family owned Rowley, and, I believe, they still own it. Besides this Rowley, called Rowley Gillet, there is Cold Rowley, which lies out by Catchside of Consett.'

Philippus, Dei gracia Dunelmensis Episcopus, omaibus hominibus totius episcopatus sui Francis et Anglis, salutem. Sciatis nos dedisse, concessisse, et presenti carta confirmasse Roberto de Languele et heredibus eius, pro homagio et seruicio suo, in feodo et hereditate, quadraginta acras terre de wasto nostro, inter Eas' et Diuerness', ex orientali parte uie que uadit [ad] Roeele. Habendas et tenendas sibi et heredibus suis de nobis et successoribus nostris, libere, quiete, et honorifice, reddendo inde nobis et successoribus nostris

annuatim quatuor solidos ad quatuor terminos in episcopatu constitutos, pro omni alio seruicio, auxilio, consuetudine, et exactione. Quare uolumus, et precipimus quod predictus Robbertus et heredes sui predictam terram habeant et teneant de nobis et successoribus nostris per predictum seruicium, libere, quiete, et honorifice, in bosco et plano, in pratis et pascuis, in terris cultis et incultis, in uuis et semitis, in introitibus et exitibus, cum omnibus libertatibus et liberis consuetudinibus ad predictam terram pertinentibus, salua in omnibus foresta nostra, ita quod quietus sit de pasnagio priorum porcorum suorum de nutritura sua, quos non adquisierit contra pasnagium nostrum. Hiis testibus, Aimerico, archidiacono Dunelmensi, Leone de Heriz, Jordano Escolland, Rogero Daudr', Robberto filio Meldr[edi], Gileberto Ansard, Robberto de Amundeuill', Waltero de Mostiers, Willelmo de Lomelee, Waltero Daudr', Petro Arpin, Robberto filio Thome, Johanne de Torp, Daniele de Ess', Hugone de Capella, Willelmo de Herlese, et aliis multis.

Seal, in yellow wax, a good deal broken, bears a bishop standing with crozier in left hand, and the right raised in the act of blessing . . . . ILLVM PHILIPPI D . . . . Apparently the same as that described in the *Proceedings* of the society (vol. x. p. 303). See reproduction of this seal one half size on p. 82.

II.—1197-1208. A confirmation by the same bishop, of a grant by Adam and Alexander de Horde to Robert de Clifford, of the moor of Horde, now Orde, near Berwick, of which a third part was to remain as pasture in common between Clifford and the Hordes. The rent to be paid by Clifford to the grantors was a besant<sup>1</sup> or two shillings at the feast of St. Cuthbert in September, that is, the feast of his translation, which was celebrated on the 15th of the month.

Adam de Orde stands near the head of the pedigree of Orde of Orde, in Raine's *North Durham*, p. 248. He confirmed the grant to the monks of Durham of the fishery of the Pool and the service of Robert de Clifford made by his son Henry de Orde, who had cut off the hand of the king's forester, and Alexander de Orde is one of the witnesses to the confirmation, *ibid.* 134, 249.

Philippus dei gracia Dunelmensis Episcopus. Omnibus has litteras uisuris uel audituris tam presentibus quam futuris salutem. Sciatis nos concessisse et

<sup>1</sup> There were two coins coined in Constantinople and current in England which were called bezants, after Byzantium, the ancient name of that city, the gold besant and the silver besant. It was the latter coin which was current for two shillings. See Kenneth's *Parochial Antiquities*, edit. 1695, p. 10 and appendix, *Boldon Book* (25 Surtees Society publ.), app. p. liii. [F. W. D.]

presenti carta confirmasse Robberto de Clifford et heredibus suis Moram de Horde quam idem Robbertus habet ex dono Ade et Alexandri de Horde per easdem diuisas per quas Hugo bone memorie predecessor noster eam tenuit ita quod predictus Robbertus et heredes sui tenebunt de predictis Adam et Alexandro et de eorum heredibus duas partes predictae More in dominio, et tertia pars illius More que est apud Orientem remanebit inter prenominatos Adam et Alexandrum et dictum Robbertum in communi pastura. Tenebit etiam predictus Robbertus et heredes sui predictam Moram de supradictis Adam et Alexandro et heredibus eorum in feodo et hereditate libere et quiete et honorifice absque omni seruicio consuetudine et exactione reddendo inde annuatim predictis Ade et Alexandro et heredibus eorum unum bisancium uel duos solidos, ad festum sancti Cathberti in Septembri. Quare uolumus et precipimus quod predictus Robbertus et heredes sui habeant et teneant predictam Moram per predictum seruicium libere quiete et honorifice in pratis et pascuis in introitibus et exitibus in uis et semitis in aquis et petariis et in omnibus aliis libertatibus liberam et quietam ab omnibus aliis seruiciis et consuetudinibus et si prefatus Robbertus infra suas proprias partes stagnum uel molendinum firmare uoluerit firmet sicut in carta prenominatorum Ade et Alexandri quam inde habet continetur. Hiis testibus Jordano Escolland Gileberto de Lega Leone de Heriz Rogero Daudr' Rogero Bordon Willelmo Escolland Willelmo de Latton Willelmo de Elton' Daudid de Auburne Willelmo de Hetton' Thoma de Twisl' Constantino de Grendon' Helia de Cornal' et Willelmo filio suo Robberto de Scremereston' Johanne de Agardeston' et Helia filio suo Patricio de Cheseuic et aliis multis.

Seal destroyed.

III.—Feb. 28, 1312-3. Agreement between John Odenel of Chevelingham and Nicholas Demester of the same place, concerning the marriage of John's son and heir, Thomas, with Isabel, Nicholas's daughter. John Odenel covenanted to settle all his freehold, namely, a messuage, a croft, 51 acres of land, 5 acres of meadow, and half an acre of wood, in Chevelingham, now Chillingham, on Thomas and Isabel in special tail. The charter of feoffment to be made according to the wishes of Nicholas's counsel. As soon as Thomas and Isabel should have had seisin for forty days, they were to re-enfeoff John Odenel for life in two-thirds of the property settled. Each parent to support his child during the five years next ensuing. Nicholas to receive the issues of the remaining third during that period. The parties to the deed covenant to build (*herbeger*) a house in the said third part sixty feet in length. Marriage to take place when Nicholas wishes it, if Holy Church will permit, Isabel being then a child.

Ceste endenture tesmoigne les couenaunces fetes entre Johan Odenel de Cheuelingham dune parte e Nichol demester de mesmes la vile dautre parte endroit del mariage Thomas filz e eyr le dit Johan e Isabele la fille le dyt Nichol. e des autres choses en ceste endenture comprises dount mesmes ces Johan e Nichol en ceste fourme sont acorde. cest asauer qe lauaundit Johan ad grauntee par sa fay done lealment premys a feffer par sa chartre en fourme taille le dymayn en la feste de la Trinite en lan de grace mile ccc. e xiiij les auaundiz Thomas e Isabele e les eyrs de leur deux corps lealment engendrez de tut le fraunk tenement dount le dyt Johan fu seisi le iour qe ceste endenture se fyt. nomement dun mes. vne croufte cinkaunte vne acre de terre cink acres de pre. e vne demye acre de boyse od les apurtenaunces en Chenelingham a tenir des chefs seignurs du fe par les services qe a les diz tenemenz apendent. e si Thomas e Isabele murgent sanz eir de leur corps isaunt touz les auaundiz tenemenz cest asauer mes croufte. terre. pre. e boyse. od les apurtenaunces au dyt Johan Odenel e a ses eirs reuertiront e remaindront a touz jours. e serra la chartre de feffement fete par le dit Nichol e soun counsaille en touz poinz a leur volente si auant com lay le put souffrir. e kaunt Thomas e Isabele aueront pesiblement leur seisine de karaunte iours continue il refefferont le dyt Johan Odenel de les deux parties de touz les tenemenz auaundiz od les apurtenaunces dount il serront par luy feffez a tenir dez nomez Thomas e Isabele e leurs eirs auaundiz en la vie le dyt Johan taunsoulement. e apres soun deces touz les tenemenz auant nomez od les apurtenaunces as diz Thomas e Isabele e leurs eirs auaundiz enterement reuertiront e remaindront a touz iours. e kaunt Thomas e Isabele serront ensy feffez le dyt Johan sustendra Thomas son filz a ses propres custages par les cinc aunz procheinement suaunz e le dyt Nichol sustendra Isabele sa fille en mesmes la manere. e fet asauer qe apres la confeccioun de ceste endenture Johan Odenel auaundyt lerra au dyt Nichol e a ses eirs e ses assignez la terce partie de touz les auaundiz tenemenz enterement od les apurtenaunces en tote manere des issues e profiz ceix tenemenz regardaunz a tenir jeskes la fin de cinc aunz procheynement suaunz de les auaundiz Thomas e Isabele sanz acountes rendre ou rien fere a nuly. e apres les cinc aunz passez les auaundiz Johan e Nichol ordoneront pur la dyte terce partie al profit Thomas e Isabele taunke a leur age en la meilleure manere quil porront. e les auaundiz Johan e Nichol frount herberger en la dyte terce partie vne mesoun de seisaunte pez de homme en longure couenablement fete a leur custages en comune. e kaunt le dyt Nichol vodra les esposailles des auaundiz Thomas e Isabele se prendront si seinte eglise le put souffrir. e si la dyte Isabele murge denz lage quinz aunz mesmes celui Johan Odenel se conust pur lui e ses eirs e ses executours estre tenuz e oblige au dyt Nichol en dys liures desterlinges a paer al dyt Nychol ou a soun atourne cest escrit portaunt a Chenelingham denz mesmes lan apres le deces la dyte Isabele. e pur ceo feffement e les couenauncez en ceste endenture comprises en touz poinz lealment parfurnir le dyt Nichol Demester se conust estre tenuz a Johan Odenel en dys liures dargent dount le dyt Johan serra parpae le iour qe Thomas e Isabele serront feffez. e sil auigne qe le dyt Johan Odenel sait ataint quil eyt coueant enfraiynt en nul poynt de nule chose en ceste endenture comprise le dyt Johan se conust estre tenuz e oblige au dyt Nichol demester en dis liures

desterlinges a paer au dyt Nichol ou a soun attourne portaunt cest escrit en lan procheinement suant apres le iour de la confeccioun de cest escrit. e lauandyt Nichol se oblige au dyt Johan Odenel en lauandite peine. sur mesmes les condiciouns a tenir couenant. En tesmoygnaunce de queu chose a ces escrit cirografez. les auandiz Johan e Nichol entrechangeblement ount mys leur seals. Done a Cheuelingham le Mescredy prochein apres la feste seint Mathy lapostle lan du regne le Rey Edward filz le Rey Edward syre.

Seal destroyed. A cross written on either side of the slit for the label.

IV.—No date. Grant by Isabel, daughter of Nicholas Demester, to Thomas de Hetonne, knight, of two parts of all the tenements in Chewelingham, which once belonged to John Odenell; and of the remaining third which was then held in dower by Emma, widow of John Odenell.

It does not appear how Isabel's estate in special tail had become enlarged to one in fee simple, or how she managed to evade the provisions of the statute *De Donis*. It is, however, possible that John Odenel had, since the settlement, conveyed his reversion in fee to his son and daughter-in-law jointly.

Sciant omnes homines quod ego Issabella filia Nicholai Demester dedi concessi et hac presenti carta mea confirmaui Thome de Hetonne militi duas partes omnium tenementorum cum pertinenciis in Chewelinghama que condam fuerunt Johannes (*sic*) Odnell'. Habendas et tenendas predicto Thome heredibus et assignatis suis de capitalibus dominis feodi illius per consuetudines et seruicia que ad illas duas partes pertinent imperpetuum. Et ego Issabella et heredes mei predictas duas partes cum pertinenciis prefato Thome heredibus et assignatis suis per consuetudines et seruicia predicta contra omnes homines warrantizabimus imperpetuum. Preterea ego Issabella concessi predicto Thome quod tercia pars tenementorum predictorum cum pertinenciis quam Emma que fuit vxor. Johannis Odenell' tenet in dotem et que post mortem ipsius Emme michi reuerti deberet remaneat prefato Thome. Habendam et tenendam sibi heredibus et assignatis suis vna cum duabus partibus predictis de capitalibus dominis feodi illius per consuetudinis (*sic*) et seruicia que ad illam terciam partem pertinent imperpetuum. Et ego Issabella et heredes mei predictam terciam partem cum pertinenciis prefato Thome heredibus et assignatis suis contra omnes homines warrantizabimus imperpetuum. In cuius rei testimonium huic carte sigillum meum apposui. Hiis testibus Rogero Hayronne Thoma Grey Militibus Waltero de Dichaud Steffano de Houbournc Johanni (*sic*) de Hesilrig' Willelmo de Lyhama et aliis.

Seal destroyed.

V.—May 6, 1343. Grant by Joan, widow of Nicholas de Huntercombe, to Thomas de Heton, knight, of all the freehold in Chelyng-**ham** and Cheuelyngham, which had belonged to her husband. Note on the back that it had been inrolled before John Stonor and his fellow justices in the Common Pleas. The arms on the seal are arranged in an unusual fashion, as the woman's coat is placed on the dexter side. The ordinary Marmion bearing was a red fess instead of the three mascles or elongated lozenges. The Huntercombes derived their name from the manor of Huntercombe in Oxfordshire, which Nicholas de Huntercombe, apparently the husband of the grantor in this charter, alienated to Dorchester abbey in 1330 (*Cal. of Patent Rolls*, 1327-1330, p. 505). They seem to have become connected with Northumberland by the marriage of William de Huntercombe with Isabel, daughter and one of the heirs of Robert de Muschamp (*Excerpta à Rotulis Finium*, ii. 90). In 1324 a settlement was made on the marriage of John, son of Nicholas de Huntercombe, and Constance, daughter of John de Lilleburn, by which the manor of Chevelyngham, which Nicholas had leased to Thomas de Heton as a security for 200 marks, was settled on John and Constance in tail; also the manors of Beleford and Yesington, and moieties of the manors of Lowyk and Hethpole, held in dower by Ellen, widow of sir Walter de Huntercombe, and other manors including Huntercombe (*Cal. of Close Rolls*, 1323-27, p. 316). It seems probable that John de Huntercombe died without issue. In 1333 Thomas de Heton was pardoned for his trespass in acquiring in fee simple from Richard (*sic*) de Hunterscoumbe the reversion of the moiety of the manor of Lowyk, expectant on the demise of Elena, widow of Walter de Hunterscoumbe, and after attornment by the said Elena, it was granted that the same should remain to John, since deceased, Alan and Thomas, his sons, and Isabel, his daughter, in fee tail (*Cal. of Patent Rolls*, 1330-34, p. 566). In 1344 Thomas de Heton had licence to crenelate his dwelling place at Chevelyngham, and make a castle or fortalice there (*ibid.* 1343-1345, p. 191).

Sciant presentes et futuri quod ego Johanna quondam vxor Nicholai de Huntercombe remisi relaxaui et omnino imperpetuum quietum clamaui Thome de Heton' Chiualer omnem accionem dotis me contingentis post mortem predicti Nicholai quondam viri mei de toto libero tenemento quod vncquam

fuit predicti Nicholai in Chelyngnam et Cheuelyngham.<sup>2</sup> Ita quod ego predicta Johanna racione alicuius seisine tenementorum predictorum per predictum Nicholaum prius habite. vllam accionem dotis erga predictum Thomam aut suos quoscumque heredes aut assignatos de cetero exigere vel habere non potero. set per presentes exclusa sim imperpetuum. In cuius rei testimonium presentibus sigillum meum apposui. Dat' apud London' die Martis in festo Sancti Johannis ante Portam Latinam anno domini millesimo tricentesimo quadragesimo tercio.

*Dorso*: Irrotulatur coram J. de Stonor et sociis suis Justic' domini Regis de communi Banco anno regni Regis E. tercii a conquestu decimo septimo ro. cxiiij.

Seal red wax,  $\frac{7}{8} \times \frac{6}{8}$  inch. *Vair three lozenges [gules] for Marmion of Checkendon, in Oxfordshire, impaling [Ermine] two bars gemelles [gules] for Huntercombe [S' J]O[HAN]NE DE HVNT'-CVM[BE].* See plate V. no. 1.

VI.—July 22, 1347. Grant by Alan de Heton to sir Henry, the chaplain, vicar of Chevelyngnam, of his lauds and tenements in Doddington, near Wooler.

Sciant presentes et futuri quod ego Alanus de Heton' dedi concessi et hac presenti carta mea confirmaui domino Henrico capellano vicario de Cheuelyngham omnes terras et tenementa que habeo in villa de Dodyngton'. Habend' et tenend' omnes predictas terras et tenementa cum pertinenciis predicto domino Henrico heredibus et assignatis suis tenend' de capitali domino feodi illius per seruicia inde debita et de iure consueta. Et ego vero dictus Alanus et heredes mei omnes predictas terras et tenementa cum pertinenciis vt predictum est predicto domino Henrico heredibus suis et suis assignatis contra omnes gentes warantizabimus imperpetuum. In cuius rei testimonium huic presenti carte sigillum meum apposui. Hiis testibus Thoma Gray milite Roberto de Maners milite Waltero de Crayk' milite Johanne de Bellyngham Dauyd Gray Waltero de Hakford' Johanne de Wetewode et aliis. Dat' apud Dodyngton' die dominica proxima ante festum Sancti Jacobi apostoli. Anno domini millesimo tricentesimo quadragesimo septimo.

Seal, red wax, circular,  $\frac{7}{8}$  inch in diameter. Within a traceried panel a shield couchée bearing a lion within a bordure engrailed with a label of three points. Over the helmet a demi-wyvern as a crest. On the sinister side a dragon with a label depending from its mouth the inscription on which is illegible (? A HETON). On the dexter side a claw issuing from the top of the shield holding a lance with triangular pennon charged with a cross. No inscription around. The Middletons of Silksworth, quartered Heaton, *vert three lions silver*.<sup>3</sup> The Heatons of Heaton, in Yorkshire, apparently not

<sup>2</sup> It is not apparent why both forms of the name of the place should be used.

<sup>3</sup> In the 'Craster Tables,' printed in vol. xxiv. of the *Archæologia Aeliana*, sir Allen Heaton has assigned to him, *vert a lion rampant argent*.



1.

1. SEAL OF JOAN DE HUNTERCOMBE. (See p. 68.)



3.

3. SEAL OF ALAN DE HETON. (See p. 68.)



2.

2. SEAL OF THOMAS DE MIDDELTON. (See p. 74.)



5.

5. SEAL OF MANJORY DE HETON. (See p. 70.)



4.

4. SEAL OF ALAN DE HETON, knit. (See p. 70.)





connected with the Northumberland family, bore, *vert a lion and a bordure engrailed silver*, which was one of the quarterings of Gascoigne of Lasingcroft. See plate V. no 3.

VII.—June 25, 1354. Grant by Constance, daughter of John de Eshlyngton, to William de Routh of her property in Overframelyngton, now Long Framlington. The deed was executed at Richmond in Yorkshire, to which county Routh and most of the witnesses belonged.

Sciant presentes et futuri quod ego Constancia filia Johannis de Eshlyngton' dedi concessi et hac presenti carta mea confirmaui Willelmo de Routh' omnia terras et tenementa cum pertinenciis in Ouerframelyngton' in Comitatu Northumbrie que michi descendebant jure hereditario post decessum Thome de Eshlyngton' fratris mei. Tenend' et habend' omnia predicta terras et tenementa cum pertinenciis prefato Willelmo heredibus et assignatis suis tam in dominiis quam in domiciliis libertatibus aysiamentis et commoditatibus vt in moris boscis piscariis viuariis viis aquis molendinis stagnis semitis pascuis et pasturis et omnibus aliis dictis terris et tenementis quoquomodo spectantibus seu pertinentibus de capitalibus dominis feodi illius per seruicia inde debita et de iure consueta imperpetuum. Et ego vero predicta Constancia et heredes mei omnia predicta terras et tenementa cum pertinenciis vt predictum est prefato Willelmo heredibus et assignatis suis contra omnes homines warantizabimus et imperpetuum defendemus. In cuius rei testimonium huic presenti carte sigillum meum apposui. Hiis testibus dominis Roberto de Hilton' Ricardo Tempest Johanne Mounceaux militibus Ricardo de Ask' Johanne de Ellerton' Thoma de Routhe Willelmo de Waghen et aliis. Dat' apud Richemond die Mercurii proxima post festum Natiuitatis Sancti Johannis Baptiste anno regni Regis Edwardi tercii a conquestu Anglie vicesimo octauo.

*Dorso*: Framelyngton.

Seal destroyed.

VIII.—July 24, 1384. Grant by Alan de Heton, knight, and Marjory, his wife, to William de Heland, rector of Angram, of all their land which came from the inheritance of the said Marjory in Swinhoe, Horton, Coldmartin, Tynemouth, and Alnwick.

Omnibus hoc scriptum visuris uel audituris Alanus de Heton' miles et Marioria vxore eius salutem in domino Noueritis nos dedisse concessisse et hanc presentem cartam nostram (*sic*) confirmasse Willelmo de Heland' rectori ecclesie de Anggram heredibus et assingnatis suis totam terram nostram que fuit de hereditate dicte Maryorie (*sic*) in Swynhow Horton' Caldemarton' Tynmouth et Alnewyk' Habend' et tenend' omnia predicta terras et tenementa cum omnibus suis pertinenciis prefato Willelmo heredibus et assingnatis suis de capitalibus dominis feodi illius per seruicia inde debita et de iure consueta in perpetuum

In cuius rei testimonium presentibus sigilla nostra apposuimus Hiis testibus Johanne de Fenwyk' Roger Heroun Willelmo de Lawall' myletibus (*sic*) Roberto de Aggirston' Johanne de Hesilrig Johanne de Howburn et aliis Dat' apud Cheflyngham die dominica in vigilia Sancti Yacobi apostoli anno Ringni Regis Ricardi secundi post conquestum octauo.

Two seals of red wax. (1) Circular,  $\frac{7}{8}$  inch diameter, on a shield within a reticulated border, a lion. The shield is suspended from a tree : *Sigillu' alant de betoun*. (2) Circular,  $\frac{7}{8}$  inch in diameter. Within a traceried panel, a lady standing and holding before her a shield charged with a lion : *s' marjorie de beton*. See plate V. nos. 4 and 5.

IX.—Same date. Power of attorney from Alan de Heton and his wife to John Scrywan (? Scriven) to deliver seisin of the property comprised in the last deed to William de Heland.

A toutz ceaux qe cestz lettres uerrount ou orrount Alain de Heton' chiualer et Mariori sa femme saluz en dieu Sachez nous auer ordine et en nostre lowe misse Johan Scrywan nostre attorne pour diliuer sesine a William de Heland' person del glise de Anggram de totz les terris et tenementz qels furount del heritage de dit Mariori en Swynhow Horton' Caldemarton' Tynmowth' et Alnewik heiaunt ferme et stable ceo qe le dit Johane fet en nostre noune tochant le dit sesine En tesmoyn de quel chose a cest lettre de attorne nous awoms m'ise nos ceallis Escrit a Cheflyngham le veille de Sein Yakes le apostill Lan de Ring' le Roy Richard secund pois le conquest ouyttyme.

Two labels, one seal remaining bearing a lion as in no. 8.

X.—August 12, 1384. Power of attorney from the same to John de Birkin, vicar of Chillingham, to receive from William de Heland seisin of the property they had granted to him. According to the pedigree of Middleton of Silksworth, given in the *Visitations* (Foster's edition, p. 239), one of sir Alan de Heton's daughters and heiresses, Margaret, married Thomas Middleton, brother of sir John Middleton.

A toutz ceaux qe cestz lettres verrount ou orrount Alain de Heton' chiualer et Maryori sa femme salutz en dieu Sachez nous auer ordine et en nostre lowe misse Johan de Birkin vicar de le glise de Cheflyngham nostre attorney por resaiuer sesine a nostre oups de William de Heland' person de le glise de Anggram de totz les terris et tenementz qe furount del heritage de dit Mariori de qels le dit William foit enfeffe par nostre chartre Heyant ferme et stabil ceo qe le dit Johan fete en nostre noune tochaunt le resayuer de dit sesine En tesmoyn de quel chose a cestz lettre de attorne nous auoms myse nos ceallis escrite a Swinhowe le vendirdi prochen apres le fest de Seint Lowrauns le apostel (*sic*) lanne de Ryng le Roy Richard secund pois le conquest ouyttyme.

Two seals of white wax : (1) Marjory de Heton's seal as to no. 8, very poor impression ; (2) circular,  $\frac{5}{8}$  inch in diameter, with a device.

XI.—April 10, 1422. Grant by Thomas de Midelton, esquire, son of John de Midelton, knight, and of Christiana, his wife, both deceased, to John de Midelton, knight, his elder brother of the whole blood, of a moiety of the site of the manor of Belsay, and of all the demesne lands with a moiety of the patronage of the advowson of the chapel of the Blessed Mary in Belsay, and other property, with certain rents from the manor of Trewick, except three tenements and three husbandlands belonging to them in Belsay, and a cotage with four acres of land, which John had in exchange by another charter for certain lands in Alnwick, one of which tenements lay above the south row before the gate of the manor, another by the lidgate<sup>4</sup> above the north row on the west of the manor; these were called Gibsonlands, and the third tenement lay at the west end of the said vill above the south row, then in the tenure of Nicholas Henrison, and the cotage lay above the south row, opposite St Mary's chapel, and was the third cotage eastward from the capital tenement of the said chantry. To hold in tail in exchange for a third part of the manor of Silksworth, and for a third part of certain lands in Tunstall, and in the Basset-flat, near the common field of Offerton, in the bishopric of Durham, which had once belonged to lady Jacoba de Strevelyn, with divers remainders over.<sup>5</sup>

<sup>4</sup> A 'lidgate' still means a gate or passage in provincial English; 'a gate between ploughed land and meadow, or pasture and meadow, in an open field'; a gate at the entrance of a village used to hinder cattle from straying among the houses (*English Dialect Dictionary*).

<sup>5</sup> The following circumstances throw some light on these transactions between John and Thomas de Middleton. In 1318, Belsay and other possessions in Northumberland of sir John de Middleton (I.) were forfeited by him for his part in the rebellion of Gilbert de Middleton against Edward II.

In 1335 those possessions were granted by Edward III. to sir John de Strivelyn, subject to life interests which had been granted by Edward II. to Thomas Crumbwell and Thomas de Bamburgh (*Patent Roll*, 9 Edward III. pt. 2, mem. 20).

In 1324 Silksworth had been granted to Richard de Emeldon, who died in 1333.

In 1361 sir John de Strivelyn and Jane, his wife, *née* Jane de Emeldon, one of the three co-heiresses of Richard de Emeldon, settled the lands (1) of sir John de Strivelyn, (2) of Barnaba de Strivelyn, *née* Barnaba de Swinburne, his first wife, and (3) of Jane de Strivelyn, with limitations in favour of John and Jane de Strivelyn in tail, with remainder to John de Middleton (II.) and Christiana, his wife, in tail, with divers remainders over (*Feet of Fines, Northumberland*, 181, file 13, no. 121, deed in Durham Treasury, new *History of Northumberland*, vi. 132, Hodgson's *Northumberland*, II. i. 35).

John de Strivelyn and Jane, his wife, died without heirs of their bodies, the former in 1378, and the latter in 1391. John de Middleton (II.) died in 1396, and Christiana, his wife, in 1421; and, immediately after her death, the deeds of

Sciant presentes et futuri quod ego Thomas de Midelton' Armiger filius Johanins de Midelton' Chiualer et Cristiane vxoris eius nunc defunctorum dedi concessi et hac presenti carta mea indentata confirmauit Johanni de Midelton' Militi fratri meo seniori de integro sanguine totam illam medietatem Situs Manerii de Belsowe et omnes illas terras dominicales ibidem cum medietate aduocacionis patronatus Cantarie Beate Marie in Belsowe et medietatem Curie bosci plani prati pasture stagnorum molendinorum et certarum piscariarum ac Medietatem sexdecim terrarum Husbandr' cum medietate viginti cotagiorum ibidem et cum reddito siue seruicio vnus libre piperis dimidie libre Cimini exeunte de Manerio de Trewyk' et cum seruicio sex denariorum super quolibet ingressu cuiuslibet heredis post mortem antecessoris eius in Manerio de Trewyk' exceptis tamen tribus tenementis et tribus terris Husband' eisdem pertinentibus et vno cotagio cum quatuor acris terre eidem pertinentibus in Belsowe in Comitatu Northumbrie que dictus Johannes habet in excambium per aliam cartam meam de et pro certis terris in Alnewyke quorum tenementorum superius exceptorum vnum iacet super le Southraue coram portam (*sic*) Manerii ibidem aliud tenementum iacet iuxta le lidgate super le Northraue ex parte occidentali dicti Manerii et vocantur gibsonlandez et tercium tenementum iacet in fine occidentali dicte ville super le Southraue nunc in tenura Nicholai Henrison' et dictum cotagium iacet super le Southraue ex opposito dicte Capelle Beate Marie et est tercium cotagium versus orientem a capitali tenemento dicte Cantarie que omnia predicta hic per me concessa simul cum dictis parcellis superius exceptis nuper habui ex dono et concessione Simonis de Weltden Habend' et tenend' omnia predicta terras tenementa et cetera alia superius specificata in Belsowe exceptis preexceptis cum suis membris et pertinentiis prefato Johanni fratri meo et heredibus de corpore suo legitime procreatis de capitalibus dominis feodorum illorum per seruicia inde debita et de iure consueta

partition and mutual conveyance and arrangement which follow were entered into by their sons John de Middleton (III.) and Thomas de Middleton.

It is observable that whilst Thomas de Middleton claims and conveys by these deeds a moiety of Belsay and the other possessions which had originally come into the settlement from the Middletons through the grant of them by the crown to sir John de Strivelyn, he does not claim or convey any interest in the lands which had originally come into the settlement from Richard de Embleton through Jane de Strivelyn in Alnwick and Silksworth.

According to a record cited by Hodgson (II. i. 354), John de Middleton (I.) forfeited in 1318 only half the manor of Belsay, etc. Probably the other half was preserved to the Middleton family by an entail, created before that date, and that under that entail John de Middleton (II.) took one half of Belsay, etc., by a title outside the settlement, and used that half for the endowment of his second son Thomas de Middleton, and that the latter was thus enabled to exchange his interest in Belsay for his brother's interest in the Alnwick property, and in Jacoba de Strivelyn's third of Silksworth manor.

The way in which the warranties of the guarantors were relied on, and the existing entails disregarded by the parties throughout all this batch of deeds, is deserving of attention.

From the seals it would seem that the Middletons had not at this date quartered the arms of Strivelyn (on a shield *sable crusilly and fitchy silver three covered cups*), but both the Middletons of Belsay and the Middletons of Silksworth afterwards did so. A Middleton deed in the Durham treasury dated in 1465 bears the quartering (1ma 6tae Spec. no. 43). [F. W. D.]

imperpetuum in excambium pro tota illa tertia parte Manerii ville de Silkesworth' cum suis membris et pertinenciis ac reuercionibus et seruiciis vniuersis ac pro tertia parte vnus terre Husband' iuxta campum de Tunstan' (*sic*) et pro tertia parte terrarum in le Bassetflate iuxta campum de Offerton' infra Episcopatum Dunelmensem que quondam fuerunt domine Jacobe de Strevelyn sicut iacent per suas rectas diuisas de et sub modis et formis ac condicionibus subsequentibus. Videlicet sub condicione quod si contingat dictum Johannem fratrem meum sine herede de corpore suo exeunte obire. Volo tunc quod omnia predicta terre tenementa et cetera alia cum pertinenciis in Belsowe et Trewyk' hic per me concessa exceptis preexceptis michi prefato Thome de Midelton' et heredibus masculis de corpore meo exeuntibus remaneant et reuertantur imperpetuum. Remanere inde postea heredibus de corporibus dictorum Johannis de Midelton' Chiualer et Cristiane vxoris eius exeuntibus legitime procreatis. Remanere tunc postea rectis heredibus et assignatis dicti Johannis fratris mei. Tenend' de capitalibus dominis per seruicia predicta imperpetuum. Et sub condicione quod si contingat me prefatum Thomam de Midelton' vel heredes masculos de corpore meo exeuntes seu nostrorum aliquem per prefatum Johannem fratrem meum heredes vel assignatos suos vel per aliquem eorum nomine seu covina aut per quemcumque alium de predictis tertiis partibus Manerii et ville de Silkesworth' cum pertinenciis seu terrarum Husband' iuxta Tunstan aut terrarum in bassetflat cum pertinenciis vel de ceteris aliis prescriptis cum pertinenciis infra Episcopatum Dunelmensem vel de aliqua parcella eorundem per processum iuris possessionem amittere expelli siue disseisiri per aliquem titulum iuris in eisdem habentem seu pretendentem habere ante datam presencium collusionem fraude et malo ingenio omnino postposit' quod tunc liceat michi prefato Thome de Midelton' et heredibus masculis de corpore meo legitime procreatis omnia predicta terras tenementa et cetera alia prescripta in Belsowe et Trewyk' superius declarata exceptis preexceptis hic per me concessa intrare habere et michi et heredibus de corpore meo exeuntibus retinere imperpetuum Remanereque inde postea in omnibus et per omnia vt superius dictum est hac carta et seisina inde deliberata in aliquo non obstante. Et si talis introitus racione premissa de cetero eueniat quod absit quod tunc dictus Johannes frater meus heredes et assignati sui teneantur ad rellberandum michi prefato Thome et heredibus masculis de corpore meo exeuntibus omnimoda scripta carta (*sic*) et munimenta tam dictas terras et tenementa in Belsowe et Trewyk' quam alia terras et tenementa in Thornburgh' nunc Simonis de Weltiden' tangencia que idem Johannes frater meus habuit ex liberatione mea super deliberacione seisine presentis carte Et ego vero prefatus Thomas de Midelton' et heredes mei omnia predicta terras tenementa et cetera alia in Belsowe et Trewyk' exceptis preexceptis hic per me concessa cum suis pertinenciis prefato Johanni fratri meo et heredibus de corpore suo exeuntibus ac heredibus de corporibus dictorum Johannis de Midelton' Chiualer et Cristiane defunctorum exeuntibus necnon heredibus et assignatis dicti Johannis fratris mei modo et forma predictis ac de et sub condicionibus prescriptis in omnibus et per omnia vt predictum est contra omnes gentes Warantizabimus et defendemus imperpetuum. In cuius rei testimonium vtrique parti huius carte indentate nos prefati Thomas et Johannes frater sigilla nostra appouimus Hiis testibus Roberto de Ogle Willelmo de Swynburn' Militibus Johanne del

Strother Willelmo Carnaby Nicholao Turpyn et aliis Dat' decimo die mensis Aprilis Anno domini Millesimo quadringentesimo vicesimo secundo. Et anno regni Regis Henrici quinti post conquestum Anglie decimo.

There have been two seals, only one left, red wax, circular, diameter  $\frac{6}{8}$  inch. A shield, *quarterly and in the first quarter a cross paty*. A cross pattern in place of the inscription around. The bearing of Middleton was, *quarterly gules and gold and a cross botony silver in the quarter*. See plate V. no. 2.

XII.—Same date. Grant by John de Midelton, knight, to Thomas de Midelton, esquire, his brother of the whole blood, of a tenement in Alnwick, by le Maltcrosse in which Thomas Bownes had lived, and 30 acres of land belonging to it, and three tofts on the west of it, a tenement in Bondgate, a husbandland belonging to it, eight acres of land in le Haugh called Messangerland, which had belonged to Lady Jacoba de Strevelyn, to hold in tail male, in exchange three tenements, etc., in Belsay, with divers remainders over.

Presens carta indentata testatur quod ego Johannes de Middleton' Miles filius et heres Johannis de Midelton' Chivaler et Cristiane vxoris eius nunc defunctorum dedi concessi et hac presenti carta mea confirmaui Thome de Midelton' armigero fratri meo de integro sanguine vnum tenementum in Alnewyk iuxta le Maltcrosse in quo Thomas Bounes nuper habitauit et triginta acra terre eidem tenemento pertinentes ac tria tofta que iacent ex parte occidentali dicti tenementi et vnum tenementum in Bondegate et vnam terram Husband' eidem tenemento pertinentem, necnon octo acras terre iacentes in le Haugh' vocatas Messangerland in Alnewyk cum suis pertinenciis que quondam fuerunt domine Jacobe de Strevelyn' prout iacent ibidem per suas rectas diuisas Habend' et tenend' predicto Thome et heredibus masculis de corpore suo exeuntibus de capitalibus dominis feodorum illorum per seruicia inde debita et de iure consueta imperpetuum, in excambium pro tribus tenementis tribus terris husband' vno' cotagio ac quatuor acris terre in Belsowe in Comitatu Northumbrie cum suis pertinenciis inferius declarandis, de et sub modis et formis ac condicionibus subsequentiibus videlicet sub condicione quod si contingat prefatum Thomam sine herede masculino de corpore suo exeunte obire. Volo quod tunc omnia predicta terre tenementa et tofta cum suis pertinenciis in Alnewyk michi prefato Johanni filio et heredibus de corpore meo exeuntibus remaneant et reuertantur imperpetuum Tenend' de capitalibus dominis per seruicia predicta Et si contingat me sine herede de corpore meo exeunte obire volo quod tunc omnia predicta terre tenementa et tofta hic per me concessa cum suis pertinenciis

integre remaneant heredibus de corporibus dictorum Johannis de Midelton' Chiualer et Cristiane vxoris eius legitime procreatis Tenend' de capitalibus dominis per seruicia predicta. Ita quod deficientibus heredibus de corporibus eorundem Johannis de Midelton' Chiualer et Cristiane legitime procreatis quod tunc omnia predicta terre tenementa et tofta hic per me concessa cum suis pertinenciis rectis heredibus meis remaneant et reuertantur imperpetuum Tenend' de capitalibus dominis per seruicia predicta vt predictum est. Et sub condicione quod si contingat me prefatum Johannem filium seu heredes de corpore meo exeuntes seu nostrorum aliquem arte vel ingenio per prefatum Thomam heredes vel assignatos suos vel per aliquem alium de predictis terris [et] tenementis in Belsowe inferius declarandis vel de aliqua parcella eorundem per processum iuris possessionem amittere expelli ammoueri siue disseisiri per aliquem habentem seu pretendentem habere titulum iuris in eisdem ante datam presentis carte Collusione fraude malo ingenio et covina omnino postpositis quod extunc bene liceat michi prefato Johanni filio et heredibus meis predictis omnia predicta terras tenementa et cetera prescripta in Alnewyk cum suis pertinenciis hic per me concessa intrare habere et possidere in feodo talliato vt predictum est imperpetuum Remanere postea inde in omnibus et per omnia vt predictum est hac carta et seisina eiusdem in aliquo non obstantibus Et si talis introitus racione premissa de cetero eueniat quod absit Adtunc (*sic*) dictus Thomas et heredes sui teneantur ad reliberandum michi et heredibus meis predictis in feodo talliato ac heredibus illorum qui contigerint possessionem habere per formam iuris in le remanere vt predictum est omnimoda illa scripta cartas et munimenta dicta terras seu tenementa in Alnewyk tangencia que idem Thomas habuit ex deliberacione mea super deliberacione seisine et sigillacione presentis carte Et vero ego prefatus Johannes de Midelton' filius et heredes mei omnia predicta terras tenementa et cetera alia prescripta in Alnewyk hic per me concessa cum suis pertinenciis prefato Thome et heredibus suis masculis de corpore suo exeuntibus Ac heredibus singulorum illorum predictorum qui contigerint possessionem siue ius inde habere per formam iuris in le remanere vt predictum est modo et forma Ac de et sub condicionibus prescriptis contra omnes gentes warantizabimus et defendemus imperpetuum Presens insuper carta testatur quod prefatus ego Thomas de Midelton' dedi concessi et hac presenti carta mea indentata confirmaui prefato Johanni de Midelton' Militi fratri meo seniori predicta tria tenementa tres terras husband' vnum cotagium ac quatuor acras terre cum pert. in Belsowe infra Comitatum Northumbrie que simul cum aliis tenementis in Belsowe nuper fuerunt Symonis de Wellden' et quorum tenementorum hic per me concessorum vnum iacet super le Southrawe coram portam (*sic*) Manerii ibidem aliud iacet super le Northrawe iuxta le lidgate ex parte occidentali dicti Manerii et vocantur Gybsonlandez et tercium tenementum iacet super le Southrawe in fine occidentali dicte ville nunc in tenura Nicholai Henryson et dictum cotagium iacet super le Southrawe ex opposito capelle beate marie ibidem et illud cotagium est tercium cotagium versus orientem a capitali tenemento eiusdem Cantarie in excambium pro predictis terris tenementis et toftis cum pertinenciis in Alnewyk Habend' et tenend' omnia tria tenementa tres terras husband' cotagium et quatuor acras terre in Belsowe cum suis pertinenciis prefato Johanni de Midelton' fratri meo et heredibus de corpore suo



exeuntibus de capitalibus dominis feodi illius per seruicia inde debita et de iure consueta imperpetuum in excambium pro sepredictis terris tenementis et toftis in Alnewyk cum suis pertinenciis de et sub modis et formis ac condicionibus subsequentibus videlicet sub condicione quod si contingat dictum Johannem fratrem meum sine herede de corpore suo exeunte obire volo quod tunc omnia predicta terre tenementa et cetera alia prescripta in Belsowe cum pertinenciis hic per me concessa michi prefato Thome et heredibus masculis de corpore meo exeuntibus remaneant et reuertantur imperpetuum Tenend' de capitalibus dominis per seruicia predicta Remanereque inde postea heredibus de corporibus dictorum Johannis de Midelton' Militis et Cristiane vxoris eius legitime procreatis Tenend' de capitalibus dominis vt predicatur. Remanere postea rectis heredibus et assignatis dicti Johannis fratris mei imperpetuum Tenend' de capitalibus dominis per seruicia predicta. Et sub condicione quod si contingat me prefatum Thomam seu heredes de corpore meo exeuntes seu nostrorum aliquem per prefatum Johannem fratrem meum heredes vel assignatos suos vel per alium eorum nomine consilio seu covina vel per quemcumque alium de predictis terris tenementis seu toftis in Alnewyk cum suis pertinenciis vel de aliqua parcella eorundem per processum iuris possessionem amittere vel alio modo expelli ammoueri siue disseisiri per aliquem titulum iuris in eisdem habentem seu pretendentem ante datam presentis carte collusionem fraude et malo ingenio omnino postpositis quod tunc bene liceat michi prefato Thome et heredibus masculis de corpore meo exeuntibus omnia predicta terras tenementa et cotagium in Belsowe cum suis pertinenciis intrare habere et possidere imperpetuum hac carta et seisina eiusdem in aliquo non obstantibus Et si talis introitus ratione premissa de cetero eueniat quod absit quod tunc dictus Johannes frater et heredes sui teneantur ad deliberandum michi dicto Thome et heredibus meis masculis. Necnon aliis heredibus superius in le Remanere specificatis omnimoda cartas scripta et munimenta dicta terras seu tenementa in Belsowe tangencia hic per me concessa que idem Johannes frater habuit ex deliberacione mea tempore deliberacionis seisine et sigillacionis presentis carte mee Et ego vero dictus Thomas et heredes mei omnia predicta tria tenementa tres terras husband' cotagium et quatuor acras terre in Belsowe cum pertinenciis prefato Johanni fratri et heredibus de corpore suo exeuntibus ac heredibus dictorum Johannis Chiualer et Cristiane vxoris eius de corporibus eorundem Johannis et Cristiane exeuntibus necnon rectis heredibus prefati Johannis fratris mei modo et forma predictis ac de et sub condicionibus prescriptis contra omnes gentes warrantabimus et defendemus imperpetuum. Et in huius rei testimonium vtrique parti huius carte indentate nos prefatus Johannes de Midelton' filius et predictus Thomas sigilla nostra apposimus Hiis testibus Willelmo de Rodom Ed'o Crawcestre Armigeris Ricardo Bounes Johanne Porter de Alnewik Nicholao Turpyn' Ricardo Anisle Jacobo Anisle et aliis. Dat' decimo die Aprilis (etc., ut in ultima carta) Et sciendum est quod predicta clausa que sic incipit Et in huius rei testimonium etc. scribitur in altera parte huius carte post datam.

Two labels with fragments of seals in red wax, one apparently the same as that attached to the last deed,

XIII.—June 20, 1475. Grant by Thomas Middleton of Silksworth, esquire, to sir John Middleton, knight, and others,<sup>6</sup> of his property in Hartley, Tynemouth, Hadston, Alnwick, and Doxford.

There is another deed between the same parties and relating to the same places with the addition of Bamburgh, dated at Silksworth, June 20, 11 Edward IV. (1471), but in other respects identical with the deed printed below.

Sciatis presentes et futuri quod ego Thomas Middilton de Silkesworth Armiger dedi concessi et hac presenti carta mea indentata confirmaui Johanni Middilton Militi Willelmo Hylton Armigero Roberto Tempest Armigero Roberto Porter Roberto Harbotill et domino Johanni Skynner presbitero omnia mesuagia terras tenementa redditus et seruicia cum suis pertinenciis que habeo in villis et territoriis de Hartlawe Tynmouth Hadilston Alnewik et Doxford in comitatu Northumbrie Habend' et tenend' omnia mesuagia terras tenementa redditus et

<sup>6</sup>The parties to this deed were sons of the Thomas and John de Middleton, the partitioners mentioned in the preceding deeds. Thomas, in the present deed, is mentioned in the *Durham Visitation* pedigree of the Middletons of Silksworth, and married Eleanor, daughter of Rowland Tempest. John, in the present deed, is omitted by Hodgson from his pedigree of the Middletons of Belsay. This John Middleton (IV.) married Isabella, daughter of Roger Thornton. *Cott. Ch.* xii. 41, B.M., *Dodsworth MSS.* 52, fols. 124, 125, and new *History of Northumberland*, VI. 300, 343, where he is called in error the son, instead of the grandson, of Christiana de Middleton. Her son, John Middleton, the partitioner, married Joan ..... [F.W.D.]

Middilton, Thomas. *Inq. p. m.* taken 27 Sep., 1480, at Bishop's Auckland. Thomas, aged 16, is his son and heir. With the intention of depriving the bishop of the custody of his lands and heir, he had enfeoffed William Hiltou and others of his lands, &c., of which they were to enfeoff his heir upon coming of age, but of which he took the profits, &c., to the date of his death.

Silkesworth, manor of, held of the prior of Durham, &c.

44 Report of the Deputy Keeper of Public Records, p. 463.

Middleton, Thomas. *Inq. v. o.* taken 20 Dec., 1498, at Darlington. He had (without due delivery by the bishop) entered on his lands.

Silkesworth, } manors of.

Elestobb, }

*Ibid.*, p. 465.

Middleton, Thomas. *Inq. v. off.* taken 6 Sept., 1512, at Durham. Anne, aged 4, is his daughter and next heir. Gilbert, aged 30, is his brother and heir to one-third part of the manor of Silkesworth and lands in Tunstall and Bassett Flat, next Offerton, which lands had been, by deed dated 10 April, 1422, conveyed by John Middilton (son of John Middilton and Christian his wife) to his brother, Thomas de Middilton and Margaret his wife and his heirs male. They had issue Thomas, who was the father of the said Thomas and Gilbert.

Silkesworth, a third part of the manor of, &c.

*Ibid.*, p. 466.

Middleton, Lancelot. *Inq. per br. de mand.* taken 16 Sept., 1561, at Durham. George Myddilton, aged 20, is his son and next heir. Silkesworth, manor of, and lands and tenements there; held of the dean and chapter, &c.

*Ibid.*, p. 471,

seruicia predicta cum suis pertinenciis prefatis Johanni Middilton Willelmo Roberto Tempest Roberto Porter Roberto Harbotill et Johanni Skyenner heredibus et assignatis suis de capitalibus dominis feodorum illorum per seruicia inde debita et de iure consueta imperpetuum. Et ego vero predictus Thomas et heredes mei omnia mesuagia terras tenementa redditus et seruicia predicta cum suis pertinenciis prefatis Johanni Middilton Willelmo Roberto Tempest Roberto Porter Roberto Harbotill et Johanni Skyenner heredibus et assignatis suis contra omnes gentes warantizabimus et imperpetuum defendemus In cuius rei testimonium huic presenti carte mee indentate sigillum meum apposui Dat' apud Silkesworth predict' vicesimo die mensis Junii Anno regni Regis Edwardi quarti post Conquestum Anglie quintodecimo.

Seal, red wax, circular, diameter  $\frac{3}{8}$  inch. Device, an eagle.

XIV.—Same date. Power of attorney to Robert Dove of Hartley to deliver seisin.

Nouerint vniversi per presentes me Thomam Middilton de Silkesworth armigerum ordinasse deputasse et loco meo posuisse dilectum michi in X'po Robertum Dove de Hartlawe meum verum et legitimum attornatum ad deliberandum pro me et nomine meo Johanni Middilton Militi etc. plenam et pacificam seisinam ac legalem possessionem de et in omnibus mesuagiis terris tenementis redditibus et seruiciis cum suis pertinenciis que habeo in villis et territoriis de Hartlawe Tynmouth Hadilston Alnewik et Doxford in comitatu Northumbrie Habend' et tenend' omnia mesuagia etc. prefatis Johanni Middilton etc. heredibus et assignatis suis secundum vim formam et effectum cuiusdam carte mee indentate eis inde confecte cuius dat' est apud Silkesworth die et anno confeccionis presencium ratum et gratum habens et habiturus quicquid predictus Robertus Dove attornatus meus pro me seu nomine meo fecerit in premissis In cuius rei testimonium huic presenti scripto meo sigillum meum apposui Dat' apud Silkesworth predict' vicesimo die Junii Anno regni Regis Edwardi quarti post Conquestum Anglie quintodecimo.

Same seal as to last deed.

XV.—March 15, 1479-80. Demise from Thomas Middleton of Silksworth, esquire, to Edward Sunderland of Bamburgh of a waste burgage and three acres of land in Bamburgh for a term of forty years from Whitsuntide then next, at an annual rent of 6s. 8d. Power of re-entry if the rent be in arrear for forty days, and no sufficient distraint be found, or the burgage shall not have been rebuilt, or kept in a state of repair, Robert Man and Robert Sym sureties.

Hec indentura facta inter Thomam Middilton de Silkesworth armigerum ex parte vna et Edwardum Sundirland de Bamburgh ex parte altera testatur quod predictus Thomas concessit et ad firmam dimisit eidem Edwardo vnum burgagium vastum et tres acras terre cum suis pertinenciis iacen' in villa et territorio de Bamburgh Habend' et tenend' dictum burgagium et tres acras terre predictas cum suis pertinenciis predicto Edwardo heredibus et assignatis suis de Capitali domino feodi illius per seruicia inde debita a festo Pentecostes proxime futuro post datam presencium (May 21) vsque terminum quadraginta annorum extunc proxime sequencium et plenarie complendorum Reddendo inde annuatim durante termino predicto prefato Thome heredibus et assignatis suis ad festa S. Martini in yeme et Pentecostes per equales porciones sex solidos et octo denarios sterlingorum Ita quod si contingat dictum redditum sex solidorum et octo denariorum a retro fore in parte vel in toto non solutum post aliquod festum prenotatum quo solui debeat per quadraginta dies et sufficiens distrccio in predicto burgagio cum suis pertinenciis nequiat inueniri Aut si predictus Edwardus predictum burgagium sumptibus suis propriis de nouo non construxerit vel si ipse Edwardus heredes vel assignati sui predictum burgagium postquam constructum fuerit non sustentauerint et reparauerint Tunc bene liceat predicto Thome heredibus et assignatis suis in predict' burgagium et tres acras terre cum suis pertinenciis reintrare et illa in suo pristino statu rehabere et possidere presente indentura in aliquo non obstante Et ad omnes et singulas condiciones prescriptas ex parte predicti Edwardi tenendas et perimplendas [predictus Edwardus inuenit Robertum Man et Robertum Sym plegios'] 'posuerunt se prefato Thome Middilton plegios et manucaptors Et predictus Thomas Middilton et heredes sui predict' burgagium et tres acras terre cum suis pertinenciis predicto Edwardo heredibus et assignatis suis in forma predicta durante termino predicto contra omnes gentes warantizabunt et defendent In cuius rei testimonium partes predictae hiis indenturis sigilla sua alternatim apposuerunt Dat' quintodecimo die Marcii Anno regni Regis Edwardi quarti post conquestum Anglie vicesimo.

Three labels, seals destroyed, for the lessee and his two sureties.

XVI. Feb. 6, 1488-9. Grant by John Bellingham of Hirst, esq., to John Middleton, knight, William Musgrave, gent., and William Horsley, chaplain, of all his property in Hirst in Woodhorn, or elsewhere in England.<sup>9</sup>

<sup>7</sup> Passage within square brackets is written in a different hand.

<sup>8</sup> Some such word as *qui* wanted to complete the sentence.

<sup>9</sup> The family of Bellingham of Bellingham, on the North Tyne, transferred itself, as to the main line, in the thirteenth century to Burnside, in the parish of Kendal, which estate is stated to have been acquired by Richard de Bellingham on his marriage with Margaret, daughter and heir of Gilbert de Burnside (see Nicolson and Burn's *Westmorland and Cumberland*, vol. i. p. 125). By a deed, dated Oct. 1, 1471, Robert Bellingham released certain rents and personalty to his son, Robert Bellingham (*Cartae Swinburn*, vol. i. pp. 173-174). Robert Bellingham, the father, died March 14, 1475/6, seised of a

Sciant presentes et futuri quod ego Johannes Bellyngham de Hyrst in Comitatu Northumbrie Armiger dedi concessi et hac presenti carta mea Indentata confirmaui Johanni Myddylton militi Willelmo Musgrave generoso et Willelmo Horsley capellano omnia terras et alia tenementa mea vna cum redditibus seruiciis liberorum hominum escaetis et reuersionibus quibuscumque que habeo vel habere potero in dominicis vel seruiciis die confectionis huius carte seu michi vel heredibus meis accidere seu reuerti poterunt imperpetuum cum omnibus suis pertinenciis in Hirst in Wodhorn in Comitatu predicto vel alibi infra regnum Anglie integre sine aliquo retenemento Habend' et tenend' predictis Johanni Myddylton Willelmo Musgrave et Willelmo Horsley capellano heredibus et assignatis suis libere quiete bene et in pace [cum] omnibus libertatibus commoditatibus proficuis et aisiametis eisdem terris et tenementis quoquomodo spectantibus [vt] in communiis pratis pascuis pasturis moris mariscis . . . leris quarreiiis carbonariis petariis et turbariis veuariis (*sic*) aquis piscariis viis semitis ac aliis locis et rebus quibuscumque . . . capitalibus dominis feodi illius per seruicia inde debita et de iure consueta Et ego predictus Johannes Bellyngham et heredes mei omnia predicta terras et alia tenementa mea vna cum redditibus seruiciis escaetis et reuersionibus cum omnibus pertinenciis supradictis prefatis Johanni Myddylton Willelmo Musgrave et Willelmo Horsley capellano heredibus et assignatis suis contra omnes gentes warantizabimus et imperpetuum defendemus In cuius rei testimonium tam predictus Johannes Bellyngham quam prefatus Johannes Myddylton Willelmo Musgrave et Willelmo Horsley capellanus partibus huius carte feoffamenti sigilla sua alternatim apposuerunt Dat' apud Hyrst predict' sexto die mensis Februarii Anno Regni Regis Henrici septimi post conquestum Anglie quarto.

One label. Seal destroyed.

moiety of Abberwick, parish of Edlingham; the inquisition after his death being taken at Alnwick, June 12, 1480; his son Robert was of full age (*Cartae Swinburn*, vol. i. p. 171).


There is, in the Swinburne papers, an award, dated Sept. 18, 1491, given by arbitration, in a dispute between sir Robert Bellingham, knight, who claimed to recover possession of Abberwick from Robert Bellingham, gent. The latter retained possession, but was ordered to pay a certain sum of money. The Bellinghams, at that period, had lands at South Middleton, near Morpeth, and apparently also at Bradford, near Belsay (*Cartae Swinburn*, vol. i. p. 170). Notwithstanding the above-named award, sir Roger Bellingham of Burnside was party to a suit respecting Abberwick about 1509. He and his wife, Mabel, lie under a goodly tomb in Kendal church (see Nicolson and Burn's *Cumberland and Westmorland*, vol. i. pp. 125-126). He was succeeded by his son sir Robert Bellingham, who, having no son, sold Burnside to sir Thomas Constable.

*Ing. p. m.* Joh. Musgrave, 8 Hen. V. no. 25 (1426-7). He died seised of the manor of Riell (Ryell near Stamfordham). He was son of Robert de Musgrave by his wife, Margaret, daughter of Robert de Ryhill. The said John died Dec. 7, 1420, Robert de Musgrave, his son and heir, aged 31 years.

*Ing. p. m.* o. Thomas Musgrave, taken 18 April, 1488. Robert Musgrave, his elder brother, being seised of [Kirk] Heaton gave it to one Elizabeth Musgrave for the term of her life, and then to the said Robert Musgrave, so Thomas being seised of the manor of Ryell, gave it to one Isabel Musgrave, for the term of her life. The said Thomas died 10 Nov. 1482 (?), his heirs being his daughter, Joan, widow of William Fenwick, and his grandson, Robert Mitford, son of Margaret, the deceased daughter of the said Thomas (see *Cal. Ing. Hen. VII.* vol. i. p. 144).—(J. C. H.)

XVII.—Jan. 6, 1489-90. Release by sir John Middleton, knight of the body of the king, sheriff of Northumberland, and lord of Belsay, William Musgrave of Riall, gentleman, and sir William Horsley of Newcastle-upon-Tyne, chaplain, to John, son and heir of Robert Bellingham of Kirkheaton, and to Margaret, daughter of George Creswell of Newbigging, gentleman, of their lands and tenements in Newbigging and Framlington, to the clear yearly value of 40s., which the releasors had of the grant of John Bellingham of the Hirst.

Omnibus X'pi fidelibus ad quos [presentes] littere peruenerint Sciatis nos dominus Johannes Middilton Miles pro Corpore domini Regis vicecomes Northumbrie et dominus de Belsoo Willelmus Musgrave de Riall in Comitatu Northumbrie gent' et dominus Willelmus Horsley de Nouo castro super Tynam Capellanus remisimus relaxauimus et hac presenti carta nostra confirmauimus Johanni filio et heredi Roberti Bellyngham de Kirkeheton in Comitatu Northumbrie Et Margarete filie Georgii Creswell de Newbigging in Comitatu Northumbrie gent' Omnia terris et tenementa in villis et Campis de Newbigging et Framlington in Comitatu predicto ad valenciam quadraginta solidorum legalis monete Anglie per Annum de Claro ultra reprisas que habuimus ex dono et feoffemento (*sic*) Johannis Bellingeham de le Hirst in Comitatu predicto gent' Habend' et Tenend' Omnia predicta terras et Tenementa in villis in (*sic*) Campis de Newbigging et Framlington in Comitatu predicto prefato Johanni filio et heredi Roberti Bellingeham predicti Et prefate Margarete filie prefati Georgii Creswell et heredibus eorum et assignatis eorum imperpetuum de Capitalibus dominis feodi illius per seruicia inde debita et de jure consueta In Cuius Rei Testimonium huic presenti Carte nostra (*sic*) Sigilla nostra Apposuimus Data apud Belsoo Sexto die Mensis Januarii Anno Regni regis Henrici Septimi post Conquestum Anglie quinto.

Three seals (1) a merchant's mark (2)  (3) a bird, perhaps an eagle displayed.

XVIII.—May 21, 1488. Notice by Henry, earl of Northumberland, lord of Poyninges, and of the Honours of Cockermouth and Petworth, and warden of the East and Middle Marches against Scotland that he had received the oath of fealty from a Scotchman, unnamed.

Henricus Comes Northumbrie dominus de Poynges et honorum de Cokirmoth et Petworth gardianus Est et Meddill Marchiarum Anglie versus Scociam Ac Justiciarius omnium forestarum domini nostri regis ultra Trentam omnibus ad quos presentes littere peruenerint Salutem Sciatis me prefatum gardianum die confeccionis presencium Recepisse corporale Sacramentum de  
 \* oriundo in scocia [quod] erit verus legius et subditus de cetero domino

\* Name left blank in the original.

nostro Regi qui nunc est et Successoribus suis Anglie Regibus et quod omnes leges et Custum' Anglie tam pronis' quam prouidend' in omnibus fideliter obediet et Inviolabiliter obseruabit durante vita sua In cuius Rei testimonium Sigillum officii mei gardianitatis Presentibus feci apponi Dat' in Castro meo de Warworth xxj die Maii Anno Regni Regis [Henrici] Septimi post conquestum Anglie Tercio.

Label for seal. Marks of wax on it.



Seal of Philip de Pictavia (1197-1208).  
(One-half size.)

## III.—‘DAGGER-MONEY.’

An unfinished paper by the late W. H. D. LONGSTAFFE, formerly  
a Vice-President of the Society.

[Read on the 25th February, 1903, by F. W. Dendy, V.P.]

Among the many tangled skeins and myths by which the chronology of Newcastle-on-Tyne is obscured, the subject of a payment of two hammered pieces of gold occurs.

In 1391, Richard II. conceded that the mayors of Newcastle might have a sword carried before them, and in 1400 that town was, by Henry IV.'s grant, to have a sheriff. It appears to be reasonable to assume that, whatever the obligations of the sheriff of Northumberland as to the king's justices might be, there was some fair arrangement as to their apportionment. In consequence of the severance of the earldoms of Cumberland and Northumberland from the crown of Scotland, a new state of matters as to the borders had arisen. Into the large question of border service, and the relative contributions of the northern counties, I cannot at present enter.

Suffice it to premise that Edward III.'s gold florin of 108 grains, current for 6s., of which only two specimens, both found in the Tyne or thereabouts, are known, was altered by him to the well-known noble of 6s. 8d., weighing at first nearly 137 grains. The weight, in

NOTE.—At the monthly meeting of the society in November, 1902, I called attention to the custom which prevails in Newcastle of presenting an old gold coin to each judge at each assize by the mayor of the city on behalf of its corporation. In my remarks, a summary of which appears in the *Proceedings*, vol. x., I commented upon the statement, which is periodically made by the mayor at the time of presentation, to the effect that the coin is a sum given to purchase a dagger to enable the judge to defend himself against the Scots on his journey from Newcastle to Carlisle, and I pointed out that there was no sufficient evidence of such an origin for the custom, and suggested that the coin was simply a present to the judge and a token of good-will. A few weeks after making these remarks, I found, whilst turning over the papers and manuscripts left by the late Mr. Longstaffe in his office at Gateshead, an unfinished paper by him on the same subject, and as my remarks had excited considerable local interest, and this paper so far as it went seemed to bear them out, I obtained the kind permission of Mr. Longstaffe's executors to read it to the society.—  
[F. W. D.]



his own reign, was reduced to 120 grains, at which it stood until Henry IV., long after his charter to Newcastle, decreased the number of grains to 108, still current for 6s. 8d. until Edward IV. fixed their value at 8s. 4d. In his second issue he made much change. The old weight of 120 grains was coined for 10s., and 6s. 8d. was represented by a new coin called an angel or noble-angel, of 80 grains, which into the Pretender's time composed the celebrated touch-piece for the king's-evil. The 10s. noble was called a rial or rose-noble, and the rose and the sun (afterwards mistaken for a spur) of the house of York formed upon it a conspicuous badge. The reign of Henry VII. witnessed the introduction of a double-rial or sovereign current for 20s., but weighing nearly double as much as our present sovereign does. In Henry VIII.'s time the rose-noble of 120 grains rose to 11s. 3d., in Mary's that rial to 13s. 4d., in Elizabeth's to 15s. All the rials of 120 grains struck after the time of their founder, Edward IV., are extremely rare. In 1868, one of Elizabeth brought £30 10s.

The first published evidence relating to a payment by Newcastle to justices itinerant occurs in the corporation accounts of September, 1562 :—' Paid to Mayster Mayre that was geven in *rewarde* to the Judges, 30s.' So far as the mere sum is concerned, the amount throws no light upon the question whether the 120 grains of gold were old or new coins, and the word 'reward' in these accounts is, when tested by contexts, found to be used in one of Halliwell's archaic senses '(1.) Regard; respect [A.V.]—(2.) To stand to one's reward, *i.e.*, to be dependent upon him, or his reward or countenance.—*North.*' The next entry is more instructive. In August, 1567, we have :—' Geven at *Mr. Maiors comandement* to the judges, two *olde* ryalls, for their *fee*, 30s. Item, geven to clarke of assis, in *rewarde*, 10s.' Why should the rials be old ones if they were for any present procuring of defence? A judge, as baron Alderson did, might well say :—' I doubt if these coins are altogether a legal tender at the present time.' There could be no difficulty in obtaining pieces which Elizabeth was striking. Halliwell again stands us in good stead :—' Fee—property; money; fee; an annual salary or reward [A.S.].' It is observable that even at this early period the mayor of the town and not the sheriff of its county deals with what

seems to have been only a voluntary present to the assize-holders. Still, whatever may have been its date of origin or motive, the practice had in 1595 become well established. In August was 'paid for 2 *old spurr* riolls given to the Judges of the assizes *yairtie accus-tomde*, 15s. 6d. per peece, 31s.'

Before proceeding, it may be well to call attention to the common practice of presenting coins as pleasant tokens or remembrances. I have one which is engraved with the letters M.H., referring to my great-grandmother. The instances in wills are innumerable. To take an example. In 1533, John Hedworth bequeaths to lady Hedworth two rials of gold, and to sir Thomas Tempest, *Mr.* Robert Bowes, *esq.*, John Lambton, *esq.* Robert Millot, Nicholas Tempest, Thomas Lawson, Richard Hedworth, and Jane and Elizabeth, his own daughters, to every one of them one rial of gold 'to a token.' To sir Thomas Hylton and William Lawson, supervisors to the testator's executors, 'to give them good counsel, and help and defend them. that none may do them wrong, as far as they may,' he gives one rial of gold each. In 1553, Margery Tunstall gives to her son 40s., to his wife, her daughter, one angel of gold, and to their two sons, one angel each. To another son she gives one angel for a remembrance, to his son another angel; to John Lancaster another angel, to each of his children 6s. 8d., to another son (in law) one *old* rial, to his wife 6s. 8d., to his daughter 6s. 8d., and to two other females of the same name of Claxton, an angel each. To each of her supervisors, sons, she gives an angel. In 1556, Cuthbert Ellison gives to every one of his wife's daughters two rials in value 20s., and to each of his supervisors in 'tokeninge' of his 'good will bearing towards them one rial in value of 10s.' One more instance shall suffice. In 1558, during the passing moments of Queen Mary, Robert Bennett, originally a monk and bursar of the dissolved priory of Durham, and then a prebendary of the new foundation, made a will in every way remarkable, and deserving of separate treatment. For my present purpose it is sufficient to deal with his bequests of gold. He leaves to Mrs. Chaytor, the heiress of Clervaux, 40d. in gold, meaning, evidently, the *angelet* of 3s. 4d., introduced by Edward IV. with the angel of 6s. 8d. With fluctuations reaching 4s. the *angelet* was once more 3s. 4d. for a short time. Bennett gives

to the lord suffragan bishop of Berwick one *old rial*. To each of two brothers Metcalfe, and four brother-prebendaries he gives an *old noble*; to another prebendary one *new rial*; and to Mr. Serjaunt Meynell one *old rial*.

The social position of the testators named above forbids all supposition that the coins given were to be anything more than keepsakes, but it is clear that those testators had to marshal their old and new nobles and angels, sometimes describing their respective values, as best they could. Some angelets are excessively rare. In 1864, Mary's rial fetched £63, her angelet £51.

Hitherto we have not found the slightest indication of any connection between the presentation of gold money and border service in kind, which might well be increased, but certainly not decreased before James I.'s accession. The burgesses of Newcastle gave largess in ancient coins, as did private individuals.

In 1627 we obtain a new and a peculiar class of evidence. It consists partly of an account in Latin of judge sir James Whitelocke for his circuit of summer, 1627, and another, in English, for two other circuits in Lent and summer.<sup>1</sup> It curiously happens that we also have the expenses of sir Thomas Swinburne, sheriff of Northumberland, during his 'sheriffwick' of the years 1628 and 1629.<sup>2</sup>

Among Whitelocke's receipts in respect of the summer circuit beginning at York, 16 July, 1627, we find the following items:—

	£	s.	d.
Of the prænatory of Lancaster ... ..	5	0	0
De Comite Darby ... ..	1	5	0
De Majore Eborac ... ..	2	4	0
De Episcopo Dunolm ... ..	12	0	0
De Villa Novo Castri ... ..	2	0	0
De Majore Novo Castri, ( <i>spur royall</i> ) ... ..	0	18	6
De Comite Cumbriae, Vicecomite Westmerland ... ..	17	0	0
De Vicecomite Northumberland ... ..	1	0	0
Item of the <i>Sheriff of Carlile a dudgeon</i> <sup>3</sup> [boxwood] dagger.			

<sup>1</sup> 70 Camden Soc. publ., p. 106.

<sup>2</sup> Hodgson's *Northumberland*, part iii. vol. i. p. 358.

<sup>3</sup> 'Turners and cutlers,' says Gerarde, 'do call boxwood "dudgeon."' Halliwell remarks that the root of box frequently provided handles for daggers. Hence dudgeon-hafted-daggers, dudgeon-daggers, or dudgeons, a term naturally sometimes confined to the handle. So Shakspeare:—

'Is this a *dagger* which I see before me  
The handle toward my hand? . . . .  
. . . . I see thee still,  
And on thy *blade* and *dudgeon* gouts of blood.'

In Lent circuit 1628, the entertainments, etc., stood thus :—

Our charges at Doncaster, by the towne ... ..	0	0	0
Of the Maïor of York ... ..	2	4	0
Munday dinner, the Maïor of York ... ..	0	0	0
Sunday and Tuesday dinner, the Shirif of Yorkshire ... ..	0	0	0
The prenotarye at Lancaster ... ..	5	0	0
The Erl of Darbye ... ..	1	5	0
Our charges, horses and men, at Lancaster ... ..	0	0	0

The summer circuit adds the four northern counties :—

Our enterteynment at Doncaster ... ..	0	0	0
Of the Maïor of York ... ..	2	4	0
Sunday and Tuesday dinner, of the Shirif of Yorkshire	0	0	0
[Mondays probably provided by the Lord Mayor as before]			
Of the Bishop of Dunolm ... ..	12	0	0
Enterteynment by the Bishop at Darl[ington] ... ..	0	0	0
Enterteynment all the Assises at Dunolm ... ..	0	0	0
Of the Towne of Newcastle ... ..	2	0	0
Enterteynment of dyet by the Towne, during the assises, for the countyes of the Shire and the Towne ... ..	0	0	0
Of the <i>Shirif of Northumberland, at leave taking, in gold</i> ... ..	1	0	0
Of the <i>Maïor of Newcastle, at leave taking, a spur royal in gold</i> ... ..	0	15	0
Of the <i>Shirif of Cumberland, all charges, and a dagger</i>	0	0	0
Of the Shirif of Westmerland, lodging, and for all charges	17	0	0
Of the Shirif of Lancaster, all charges during the Assise	0	0	0
Of the prenotarye of Lancaster ... ..	5	0	0
Of the Erl of Darbye thear ... ..	1	5	0

The judges seem to have been franked at Doncaster, York, Carlisle, Durham and Newcastle. In the royal duchy of Lancaster of course they were. The bishop's £12 would therefore be a downright *donum*. The £17 from the hereditary sheriff of Westmoreland 'for all charges' may have been owing to his not being resident at Appleby castle, and in lieu of hospitality. He, however, provided lodging. The sittings at the little town on the Eden would be very brief. It elsewhere appears in Whitelocke's *Liber Famelicus* that 'the allowance of Justices of Assise in thear circuits, as it was proportioned at the first making thearof' was at the following rate :—

		£	s.	d.
' A puisne Judge for his	{ Dyet per diem ... .. Men, ten, allowed eatche 16 <i>d.</i> ... .. Horses, thirteen, eatche 16 <i>d.</i> ... ..	0	18	4
		0	13	4
		0	17	
		<hr/>		
Ad for the second Judge as mutche ... ..		2	9	0
		<hr/>		
		4	18	0
For the Clerk of Assise, three Men, eatche 16 <i>d.</i> ... ..		0	4	0
For five horses for the Clerk of Assize, eatche 16 <i>d.</i> ... ..		0	6	8
Thear is allowed to bothe Judges for linnen and other necessaries ... ..		0	13	4
		<hr/>		
This in all is for both Judges per diem ... ..		6	2	0
		<hr/>		
This for Oxfordshire circuit for <i>twenty-eight</i> dayes, whiche was the olde allowance, came to ... ..		170	16	0
Out of this the Clerk of Assise had, for horse- meat for twenty eight dayes ... ..		9	6	8
		<hr/>		
of ether Judge for every circuit ... ..		4	13	4
		<hr/>		
Thear is an addition of <i>five</i> dayes to this circuit ... ..		30	10	0
		<hr/>		
So the allowance is now ... ..		201	6	0
		<hr/>		
To ether Judge ... ..		100	13	0
		<hr/>		

The Clerk of Assize hath but *his old* allowance for horsemeat.'

I have given this strange document in its entirety, only varying the typographical arrangement a little, in order to make it more clear. Was each circuit estimated as to probable time, and the judges paid upon it, irrespectively of the time actually employed? And, in consequence of the falling value of money, was the estimated time fictitiously increased? I am sorry for the poor clerk of assize, upon whom the pinch would come more severely than upon his masters. And I much wonder whether all the dones and free-keeping were duly set against the orthodox allowance. Furthermore, I much suspect that the judge sold his spur rials in those non-numismatic days, because he puts down varying sums for them, 18*s.* 6*d.* and 15*s.*, whereas he places cyphers against his entertainments, receiving meat and drink and lodgings, but no gold or silver. In clear professional profits, his income in 1627 was £974 10*s.* 10*d.*, for which, as money then went, he properly signs DEO GRATIAS.

It will have been observed that in both years a dagger was given to each judge, not by a sheriff of Northumberland or Newcastle, but

by the sheriff of Carlisle or Cumberland at the end of the journey, as I assume, unless we surmise that the western sheriff came to Newcastle to conduct, an improbable theory. I was at one time disposed to think that the service might be varied in accordance with the changeable judicial routes. But this cannot be, because it is plain that in both years in which the dagger was so rendered the judges were proceeding from east to west. I may as well at once put in sir Thomas Swinburne's own account as to the gold in 1628. 'Item, to the Judges, Sir Henry Yelverton and Sir James Whitlock, either of them a peece *att our parting upon Benwell hills*, 40s.'

It may also have been observed that in both years the contributories contented themselves with feeing the judges with the current coin of the realm, whereas the municipality of Newcastle troubled themselves with purchasing from the coin dealers of the day the old spur rials, 'not a legal tender.' I believe that, even now, a young freeman of Newcastle proffers some *old* silver penny or twopence on taking up his freedom.

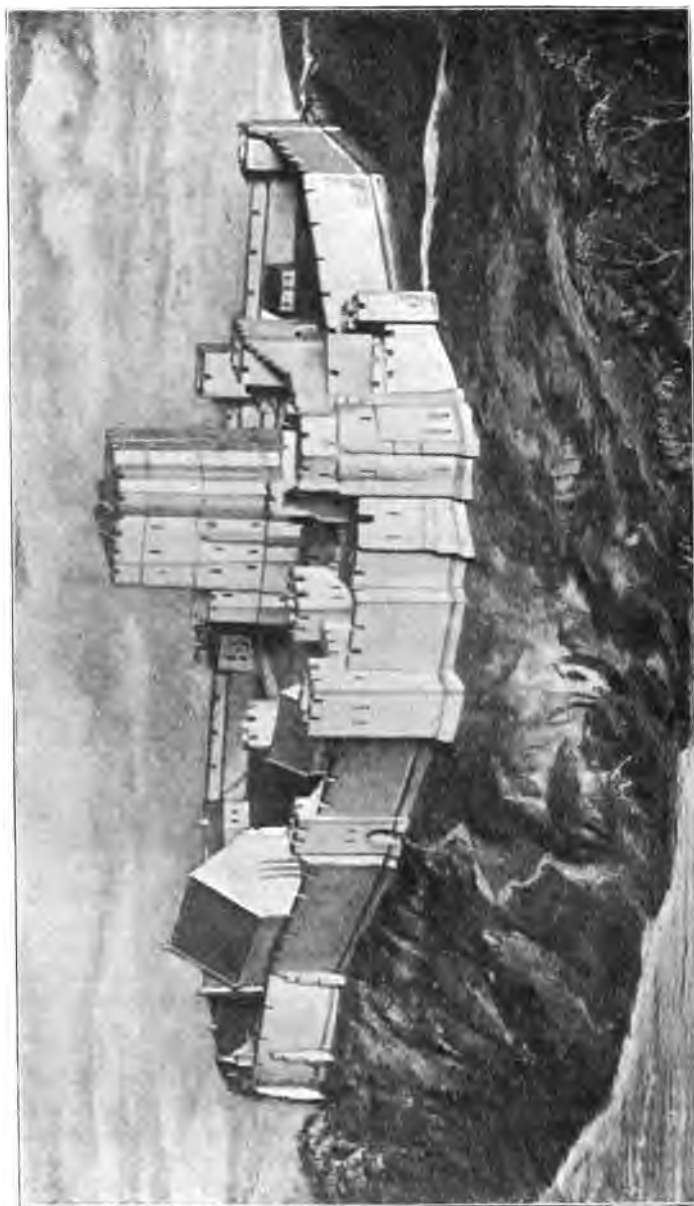
Leaving the precious metal for the moment, let us compare the judge's account with what was actually done at Newcastle.

[NOTE.—Mr. Longstaffe's manuscript unfortunately ends at this point. I will only add that no mention of the custom appears in any of the histories of Newcastle published between 1736 and 1827, although in that interval exhaustive accounts of the town were written and published, viz. :—in 1736 by Bourne, in 1789 by Brand, in 1801 by an anonymous author reputed to be the rev. John Baillie, in 1812 by Hodgson, and in 1827 by Mackenzie. There is also no mention of the payment in the report of the examination into the affairs of the corporation in 1833 by Messrs. Dwaris and Rumbold.

In 1839, the late M. A. Richardson published from the Hornby MS. in the possession of the duke of Northumberland 'extracts from the municipal accounts of Newcastle-upon-Tyne extending from 1561 to 1688.' It is in this publication that the payments to the judges in 1562, 1567 and 1595, cited by Mr. Longstaffe, as well as another payment of 'two rose nobles' in 1659 not mentioned by him, appear.

The first mention of the custom in the nineteenth century is to be found in the third edition of Brockett's *Glossary of North Country Words*, published in 1846, where it appears under the heading of 'dagger money.'

It is probable that after the end of the seventeenth century the custom was for a long time discontinued, that after Richardson's account was published in 1839 it was revived, and that on its revival it received the picturesque name of dagger money for insufficient reasons. The corporation accounts subsequent to 1688 might, if investigated, throw some further light on the subject.—F. W. D.]



RESTORATION OF THE CASTLE OF NEWCASTLE-UPON-TYNE, VIEWED FROM N.W.  
(From a Model by the late Mr. John Ventres, now in the Blackgate Museum.)

IV.—NOTES ON A RECENT EXAMINATION OF CERTAIN  
STRUCTURAL FEATURES OF THE GREAT TOWER,  
OR KEEP, OF THE CASTLE OF NEWCASTLE-UPON-  
TYNE.

By R. OLIVER HESLOP, M.A., F.S.A.,  
one of the secretaries of the society.

[Read on the 25th March, 1903.]

I propose to lay before our members some of the results of an investigation made at the suggestion of Mr. John Gibson, warden of the castle.

First, however, it may be well if I recall the circumstances leading to the enquiry, and the point to which examination was directed.

The upper stage of the great hall, as it now appears, carries the barrel vault, erected in 1810, commonly spoken of as alderman Forster's roof. Immediately below, a passage-way is carried round the four sides of the hall in the thickness of the wall, much like a triforium, or blind storey. Large openings, one at either end, under the vault, and two at each side, east and west through the spring of the arch, serve to suggest the term 'triforial gallery.' In the floor of this gallery, exactly in the middle of the passage-way in the western wall, there is a trap-door. This had long been choked with debris. On lifting it, daylight could be seen through a chink communicating with the outside face of the wall. From the street below, the orifice presented the appearance of an accidental hole, broken raggedly at its sides, where the joints of some courses of stonework seemed to be dislodged and colonies of jackdaws found their home. In a surface, presenting the symptoms of decay observable here, a cavity like this is not remarkable, and it seems to have attracted little or no attention. I cannot find a single reference to it in a description of the keep, or in any discussion held in this room; and yet I trust to be able to show you that its existence elucidates an obscure and controverted point in the design and in the internal arrangement planned by 'Mauricius Ingeniator' for his royal master, Henry II.



The west wall of the keep, it will be remembered, carries the latrine shafts and the flues from the main apartments ; a wide buttress being added to compensate for these perforations. Its only mural chambers are on the level of the great hall and immediately above that floor level. So that, compared with the other faces of the tower, it is of much greater solidity than the rest. The multangular form of its north-west angle adds a further feature of almost unbroken strength to this face of the structure. From the hearth in the great hall a modern chimney breast has been built against the inside of this wall, where it has the appearance of a flat buttress,  $9\frac{1}{2}$  feet wide, projecting into the hall. It rises through the barrel roof overhead, of which it is probably a contemporary work. The trap-door, above referred to, is immediately behind this buttress and it is well to note that the inner face of the wall, for the width of 9 to 10 feet, is entirely masked by this excrescent structure.

Turn with me now for one moment to the south wall of the keep as it is viewed from the great hall. A passage-way runs in the thickness of the wall at a height of about sixteen feet above the level of the floor. It is reached from the south-east newel stair, and, after intersecting the large south window splays, it is continued westward, where, after an ascent of nine steps, it terminates in a dark cul-de-sac. The ninth step reaches a landing, where, on the right hand, the indication of another step shows that a return of the stairs had been intended to be made at a right angle, so as to carry the passage upwards in the west wall. But the passage-way and steps in that direction had been built up with masonry, apparently of an early character, leaving the termination of the gallery much like the recess of a dark cavern.

Mr. Gibson pointed out that the oblique line of the stairs, if followed upward in the west wall, might correspond with the position of the trap-door in the triforial gallery above ; that the great thickness of blank wall at this point suggested the possibility of a hitherto undiscovered mural chamber ; and that, in any case, it was most desirable to make a thorough examination of the space immediately underneath the trap-door and to open out the masonry of the blocked stairway below, with a view to show the connexion, if any existed, between the two, and to ascertain definitely the course and purpose of the blind staircase.

Mr. Gibson's suggestion was laid before the members of the society in 1894, who willingly voted a sum of five pounds towards the explorations, appointing the late Mr. Sheriton Holmes, Mr. W. H. Knowles and the writer to superintend the excavation. Mr. Holmes immediately engaged suitable men for the work and entered upon the task with his characteristic energy. Pressure of other work and failing health prevented Mr. Holmes from embodying the conclusions obtained in a report, and by his lamentable death our society was deprived of learning the results from one whose experience in building construction and whose archaeological knowledge made his deductions the more valuable.

Mr. Knowles brought to bear the qualities of a specialist as well as his professional skill and the results obtained were largely due to the vigilance and alertness with which he superintended the work. So thoroughly, in fact, did he enter into it that he was induced to undertake a minute examination of the entire structure, having discovered discrepancies in existing plans of the building. This decided him in making an entirely new survey of the keep, an undertaking involving great detail and of such magnitude that time must necessarily elapse before its accomplishment. When that work is completed, however, we shall possess not only an embodiment of the operations now under notice, but complete and accurate descriptions of the entire fabric.

Meanwhile, I trust I may be pardoned for taking upon me to lay before the members some of the results of this interesting exploration pursued within our own walls. Let me premise, in doing so, that the anticipations of discovering a hitherto unknown intra-mural chamber proved futile. Nor were the romantic feelings, with which we followed upward, step by step, the mysterious stairway, stimulated as our work progressed. All our preconceptions, in fact, were dissipated by the results obtained. But these proved of the highest value, in other and quite unexpected directions.

Operations were begun at the trap-door in the mural gallery, but it may be better for our purpose to describe, first, the work done on the blind stairway lower down.

This was begun by removing the courses of ashlar resting on the bottom step of the blocking, where the return passage in the lower

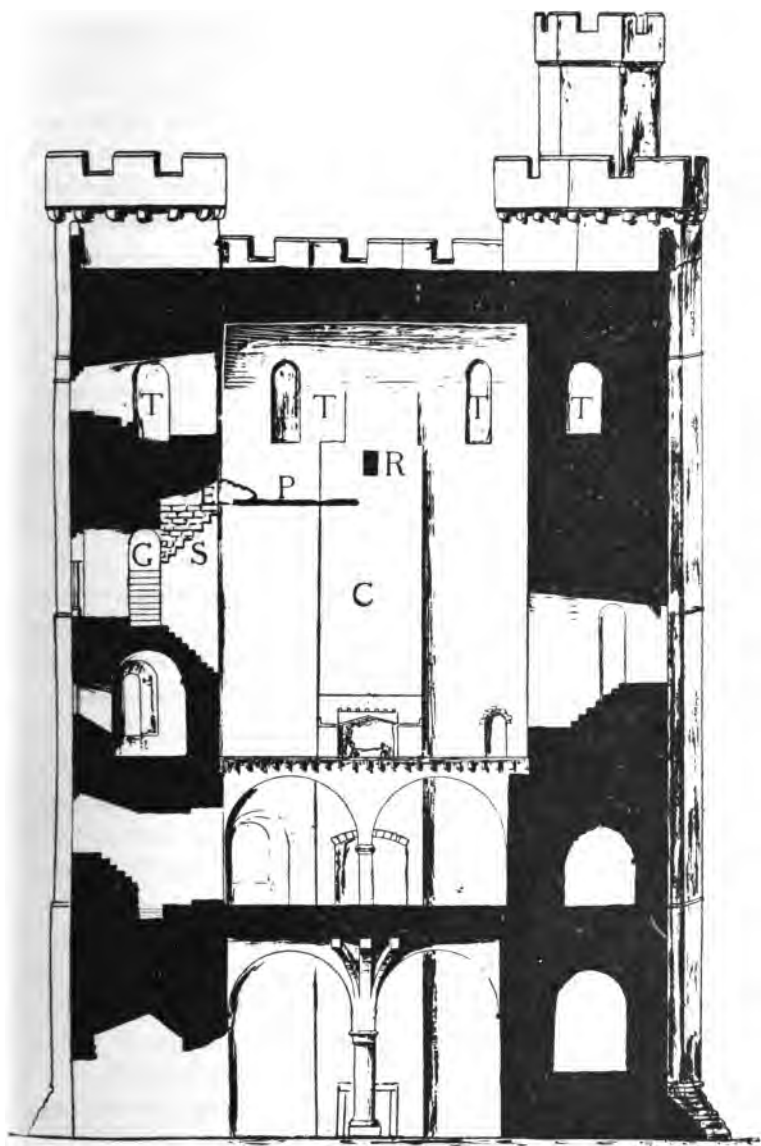
gallery was found to measure 3 feet wide by 5 feet high. Material of a more or less easily wrought character, it had been anticipated, would be found to constitute the filling behind, and the clearing out of the stairway had been supposed to present a comparatively easy task. It was soon found, however, that the backing, with which the stairway had been closed, was a compact mass of grouted walling that had set in the hardest concretion. Progress in such material was necessarily slow, as it became almost as difficult to hew as a face of solid stone. In consequence of this it was necessary to restrict the height of the excavation to that of a hole barely sufficient to admit the body of the workman employed. In this manner eight steps, having side walls on either hand, faced with dressed ashlar courses, were bared. But this facing ceased at the eighth step, where the stairs also ended abruptly. There was no landing on the level of the top step ; and every indication showed that the stairs had not ascended higher. Space was hewn above and to the right and left ; but it only continued into the grouting, of which the inner thickness of the wall is composed. It became evident that the excavation had been now carried into the original wall of the keep, and, consequently, that the stairs had never been constructed any higher than the eighth step. But the character of the building material found in the original wall was identical with the blocking material encountered all the way from the stair foot. So that the conclusion became certain that the filling in of the stairway had been contemporary with the building of the keep itself.

As the design of the king's architect had provided the straight mural stair, thus far excavated, it is apparent that a change of plan had taken place at this point, leading to the closing of the passageway with the material of construction and filling it in, from side to side, upon the uncompleted stairs.

The abandonment of so important a feature of the structure may be compared with circumstances attending the operations of Henry II.'s builders.

The erection of the keep appears from the Pipe Rolls to have begun in the year 1172, continuing through five subsequent years.<sup>1</sup> In the expenditure of 1174 the amount spent in the operations fell to

<sup>1</sup> See *Archæologia Aeliana*, n.s. vol. iv. p. 63, &c. Boyle and Knowles, *Vestiges of Old Newcastle*, &c., p. 47.



C. Chimney breast. Modern.

G. Blind gallery.

T. Triforial gallery.

R. Outlet of Roof drain discovered

S. Stairs uncovered.

E. Excavation in solid wall.

P. Perforation, bones of Bats found.

R.O.H. delt.

£12 15s. 10d. only. The date corresponds with the invasion by William the Lion with his huge forces. 'Well sees the king of Scotland,' exclaims the chronicler, 'that he will never succeed in conquering the Newcastle-on-Tyne without stratagem.' Incomplete as was the great tower at this time, the works had, evidently, been rendered impregnable to all but an investing army provided with heavy siege artillery. The suspension of building operations is sufficiently indicated by the small expenditure of the year on the keep ; and their resumption in 1175 is shown by payments amounting to £186 15s. 4d. Whether or not the stoppage of the works at this date caused a reconsideration and subsequent modification of the design, may be open to question. The facts remain that the building of the keep was interrupted during its progress ; and that the architect's plan was, either at that or a later stage, greatly modified in its internal structural arrangement, as we have seen.

The excavation of the steps had been carried a distance of 6 feet 4 inches within the blocked face when the last ascending step was cleared. On digging farther into the heart of the rubble, a long cavity was disclosed, about eighteen inches to the right of and level with the uppermost step. It is of irregular form, and eight to ten inches in diameter. Probed with a rod it was found to extend for a distance of fourteen feet further immediately behind and parallel with the inner face of the wall of the great hall. Its origin and object are alike inexplicable, but it must, at some period, have had an outlet at its farther extremity ; for there were found, in the recess broken into, numerous skeletons of bats. Besides these, Mr. Gibson found, by drawing a rod along, the blackened heads of clay-pipes, of the kind known as 'churchwardens.' These clay-pipes present the character of tobacco pipes in use in the nineteenth century and have probably been thrown into the open end of the cavity by workmen engaged in building up the chimney breast and the barrel vault in 1810. They quite correspond with pipes in use at that period.

In Bourne's time the castle stood roofless. He describes the entrance to the great hall from the fore-building as 'a very stately Door of curious Masonry.' From its threshold a scene of ruin and decay was looked down upon ; whilst, overhead, the four-square enclosure was open to the sky. Bourne says, 'the Room has its Floor

broken down close to the Castle Wall, as indeed all the other Floors are to the top of the Castle ; so that, excepting the Floor above the County Gaol, there is not one left.'<sup>2</sup> The state of ruin when Bourne wrote in 1732 continued until the year 1810. 'This noble fortress,' writes Mackenzie, 'had been long tenanted by a currier and its walls sheltered a vast number of bats ; while the Chapel was used as a beer cellar for the Three Bulls Heads public house ; but its reparation and improvement were now commenced with great spirit. The top of the Keep was arched and flagged, the battlements embrasured, a corner tower for a flag-staff raised, and the stairs and interior apartments were carefully restored to their pristine form. Twelve carronades,' he adds, 'were also mounted, to be fired on days of public rejoicings.'<sup>3</sup> The orifice broken into had evidently been one of the retreats and hybernating places of the 'vast number of bats' just referred to.<sup>4</sup> It is highly probable that the dilapidation described extended most seriously on the west wall, where the flues had probably fallen out altogether. For it was, as we have seen, necessary to build anew the entire chimney-breast from floor to vaulting. It would be in course of this reconstruction in 1810 that workmen employed left their broken and discarded tobacco pipes in this recess.

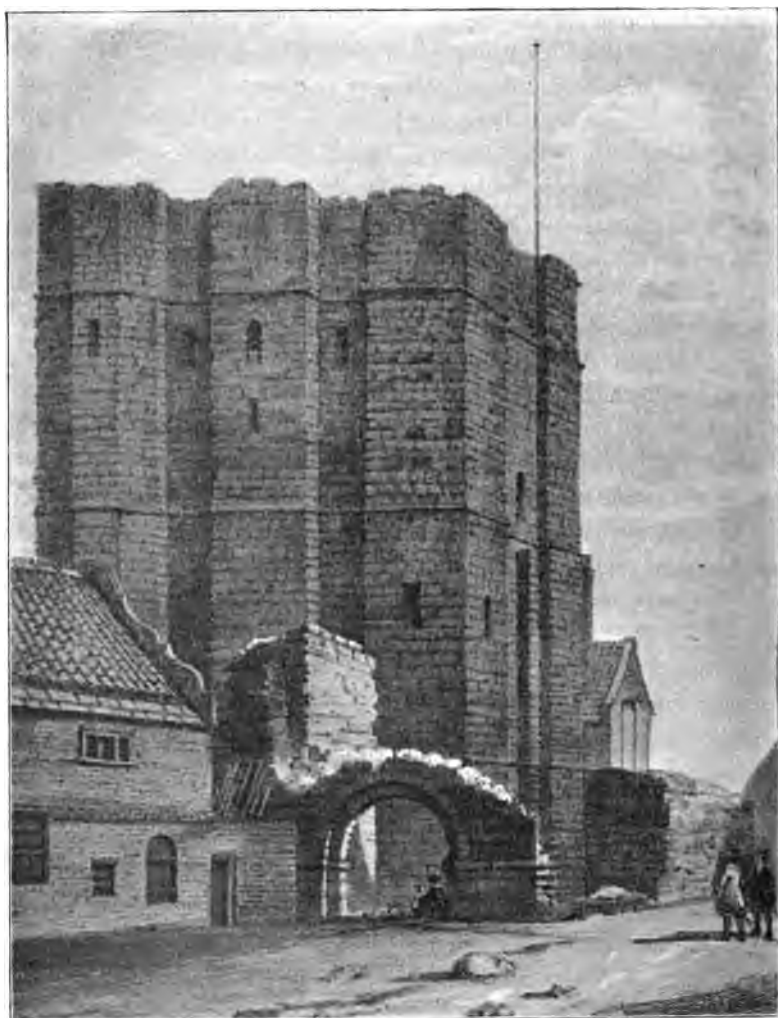
To return now to the trap-door in the floor of the west triforial gallery, and situated immediately behind the centre of the chimney-breast just referred to, it should be stated that this was merely an old door that had been taken off its hinges and laid down on the spot. It covered and afforded footing over what had hitherto been supposed to be a mere break in the floor.

The work of clearing out the debris was begun ; the special object being to ascertain whether connexion with the blind stair, just below, could be discovered. As, however, the course of the blind stair was immediately on the west of the line of the triforial gallery there seemed probability that the want of continuity in the line might be accounted for by the existence of a mural chamber between the trap-door and the blind stair. By excavating downward, whilst

<sup>2</sup> Bourne, *History of Newcastle*, p. 119.

<sup>3</sup> Mackenzie, *History of Newcastle*, 1827, p. 97.

<sup>4</sup> Bourne quotes the Millbank MS., which says it was 'full of chinks and crannies.'



WESTERN FRONT OF KEEP OF CASTLE OF NEWCASTLE IN 1811, WITH ARCH OF BAILEY GATE  
IN THE FOREGROUND.

(Reproduced from Jefferson's lithograph in *Archaeologia Aeliana*, N.S. iv. 98.)

The four loops under the uppermost string course are on the line of the triforial gallery.  
The orifice below, in the centre of buttress, is the spout-hole from the roof.

the workmen on the stair below drove their cutting upward simultaneously, the intention was to meet and disclose the supposed connexion between the two extremities.

But we have already seen that the stairway only consisted of eight steps, and that evidence plainly showed it had never been continued beyond, the original plan of the structure having been relinquished as far as this feature was concerned. In an equally remarkable manner, the assumption respecting the trap-door proved false as investigations proceeded. Beneath the foot-way of the mural gallery the removal of the door revealed a mass of loose debris, a mere dense collection of material that blocked a gap almost to the floor level of the passageway. Its loose character rendered the work of removal comparatively easy; but its quantity was sufficient to fill many carts. Very soon the hole was found to be an entrance broken through the crown of an arched passage way; and a regularly built tunnel was discovered at a depth of 6 inches below the floor of the triforial gallery. The sides of this are faced with ashlar courses of excellent masonry, exhibiting the most careful construction, and contemporary in character with the original masonry of the keep, forming an essential part of the original work. Measuring 14 inches wide by 24 inches high, from its floor to its crown, it had passed horizontally through the entire thickness of the western wall, at a height of  $25\frac{1}{4}$  feet from the floor level of the great hall. Its inner termination had been entirely masked by the flue shaft built up against the inside face of the western wall in 1810. As we have seen, its outside termination is still visible from the street as a jagged hole immediately below the level of the triforial gallery. Its outer jambs are now so dilapidated that it presents every appearance of a mere accidental break, due to decay in the facing stones. Only thus, and by absence of knowledge of its internal construction, can its existence hitherto have escaped observation. Yet it is strange that its appearance, as delineated in Jefferson's lithographed view of 1811, in *Archaeologia Aeliana*, n.s. iv. page 98, has passed unnoticed. This is reproduced on the opposite page. For it is there shown as a regularly built outlet with an arched head. A closer examination of the orifice itself plainly shows that its foot-stone had been projected, though now broken off close to the face of the wall. There is no manner of doubt that



this foot-stone terminated as a projecting spout, or gargoyle ; and it is equally apparent that the tunnel now disclosed is the original outlet of the drain from the main roof of the keep.

The importance of this discovery will be apparent by the fact that here we have at length found a key to a hitherto obscure and much disputed problem ; namely, the level of the ancient roof of the great hall. By this we have found the yet further unlooked for result, in discovering the character of the triforial gallery as intended by its architect in the years of the building of the keep.

Nor is this all ; for Mr. Knowles immediately began, with the instinct of a specialist, to sound the walls at the level of the spout line just discovered. This operation, conducted, not without peril, from the summit of a builder's long ladder, was duly rewarded when Mr. Knowles found indications of a second outlet from the roof-gutter, in the north-east corner of the north wall. This second outlet, however, is of a very different description from the first, just now described ; for it has the appearance of an afterthought and not of an original construction. It is, in fact, a conduit of much smaller dimensions than the first ; and it has every appearance of being dug out of an existing wall, its character being that of a roughly made hole contrasting with the carefully constructed condition of the larger orifice in the west wall.

It will be seen that we have now the means of showing the original height of the great hall from floor to roof-principals. Misled by the existing barrel roof, the height has hitherto been exaggerated, having been always assumed to be much above the level now undoubtedly revealed. With the actual position of the roof now before us, the great hall is shown to be no longer of disproportionate height, but to be an apartment designed originally upon a scale such as to enhance its stateliness, or even, it might be said, its magnificence. Its actual dimensions thus become  $30\frac{1}{2}$  feet long, 24 feet broad, by  $24\frac{1}{2}$  feet high to the eaves. It will be seen that the height of the roof above the floor is in keeping with the proportions of the great window lights on the north, south, and east sides of the hall ; lights which are on a scale of great dignity, and are evidently intended for an apartment of this lofty description.

By this determination of the actual original roof height it

becomes evident, that, whilst the triforial gallery presented only loops on the outside face of the walls of the keep, its large internal openings (now looking *into* the great hall) were originally lights, open to the day, and looking down upon the roof within the quadrangle of the structure. The battlements thus rose clear of and masked the roof within the curtain walls.

It should be noticed that the original roof line of the great hall did not escape the acute observation of Mr. Longstaffe, although, in the absence of information such as is disclosed by the explorations now under consideration, he advances his statement with diffidence. He points out the projection on the inside wall on the south of the great hall, which he calls its ceiling mark. A similar but less defined mark runs along the opposite north wall. These now prove to be the original gutter lines of the spouting. The triforial gallery thus becomes Mr. Longstaffe's 'fourth or defensive storey, now partly thrown into the great hall.'<sup>5</sup> He also states: 'the original roof would most probably be hipped and tiled.'<sup>6</sup> This is in exact accordance with the fact, now disclosed, of there being a single original outlet; that, as we see, is constructed of dimensions large enough to carry off the rainfall of the entire roof by one aperture. And this further involves the construction of a hipped roof. This form leaves all the triforial windows open to the quadrangle; and enables a continuous gutter to be carried along its four sides to the outlet.

But we have yet to account for the existence of a second, and apparently extemporized, conduit on the north-east corner of the quadrangle.

The keep had stood but 63 years when the Pipe Roll indicates, under date 1240, that its roof was covered with lead. Thirty years later, in 1270, the large sum of £67 6s. was spent in its repair.<sup>7</sup> Either at this date, or at a later period, the hipped roof was renewed by another form of roof, having its ridge carried from wall to wall. This ridge closed in the single triforial windows in each of the north and south walls, their outlook now being into the great hall itself instead of upon the hips of the former roof. But the construction of a ridge roof intercepted the continuity of the four original gutters,

<sup>5</sup> *Archæologia Aeliana*, vol. iv. N. S. p. 87.

<sup>6</sup> *Ibid.*

<sup>7</sup> *Archæologia Aeliana*, *supra*, p. 80.

all leading to a single exit. There thus became two gutters separated from each other by the ridged roof. That on the west side continued to carry off the water as before ; whilst for the gutter on the east side it became necessary to improvise another outlet. This sufficiently explains the rough and ready character of the north-east conduit discovered by Mr. Knowles.

Having at length demonstrated the original proportions of the great hall, it may be well to notice some conjectures formerly indulged in respecting it.

In the year 1855 additional space was found to be required, in order to display properly the collection of antiquities in the possession of our society. A much favoured proposal was that of converting the great hall by the addition of an upper stage, the existing barrel vault giving place to a glass roof. 'Was there ever a room over the great hall or not?' enquired the advocate of this proposal. 'There were marks in the wall which had led some authorities to answer the question in the affirmative ; supports of some kind there had evidently been, and the conclusion had been drawn that these supports had borne the floor of an upper chamber.'<sup>8</sup> Fortunately, Dr. Bruce demurred to this. 'Unquestionably they must have more room,' he allowed, 'but as to the erection of an upper chamber, that, he thought, would destroy the magnificent effect of the great hall.'

A year later the subject was again urged, the same disputant once more enforcing his opinion that 'there had anciently been not one room only, but two—one over the other. There were,' he stated, 'joist-holes in the walls, showing the level of one destroyed floor.'—'No architect,' it was added, 'would ever have built, originally, so disproportionate a hall—a hall 45 feet high, and only 25 feet long and 24 broad.'<sup>9</sup> Dr. Bruce, continuing to demur, was confronted with the fact of the joist-holes referred to. These, he explained, were indications of a gallery ; not of an upper floor.

It is necessary to mention here that joist-holes are visible in the east and west walls at the extremities of the hall only. They are cut into the walls evidently at a late period, and for some adaptation of the structure. They had been filled and plastered over, probably during the restoration of 1810, and some were opened out by our

<sup>8</sup> *Proceedings*, old series, p. 20.

<sup>9</sup> *Ibid.* 86.

attendant, Mr. Gibson, who ascertained their position by sounding the wall. These beam-holes are 11 feet 3 inches from the floor of the hall and are intended for the insertion of large baulks of timber, 11 to 12 inches square, and, from their size, the intention was evidently to support a great weight. Their position is on a line intersecting the great north and south windows, and just at the level where the openings could be converted so as to be used as embrasures for ordnance, mounted on strong platforms, laid across the window splays. Galleries here, effectually blocking the windows, could have formed no part of the original construction of the hall. They are manifestly a temporary defensive expedient, hastily extemporized at some later period, to meet an emergency.

Did any such emergency present itself in the history of the keep? An answer may be found in the descriptions of the last occasion on which this fortress was besieged. In the year 1643, the mayor of Newcastle, sir John Marley, treated with the Company of Shipwrights concerning covering the castle with planks. The books of the company record the negotiation in a minute of their meeting, dated August 21, in that year.<sup>10</sup> In the following year the character of the shipwright's beams and planks become apparent from the use made of them in the great siege of the town. We learn that the Half Moon battery was made use of by sir John Marley 'to secure the River and Key-side against the Scots, and the other Castle,' that is the present keep, 'he put into good Repair, which was very ruinous: On the former he laid great guns, for the Use above-mentioned; and on the latter he laid great Ordnance, to beat off the Guns which the Scots had laid upon the Banks of Gateshead against the Town.'<sup>11</sup> Thus, with the assistance of the shipwrights, the extremities of the great hall, as well as the battlements, were doubtless, by beams and planks, rendered capable of carrying sir John Marley's 'great ordnance' upon extemporized gun platforms. These lower wall-holes are quite in correspondence with the circumstances just described.

Mr. Gibson also discovered beam-holes in the east and west walls at a height of 24½ feet above the floor level of the great hall. These cannot have been joist-holes for an upper floor, because they are just

<sup>10</sup> Brand, *History of Newcastle*, 1. 159.

<sup>11</sup> Millbank MS., Bourne, *History of Newcastle*, p. 233.

where we must expect to find socket-holes for the roof principals, as they would correspond with the level of the outfall from the roof, now ascertained.

I may here mention that I had the privilege of going over the features just described, point by point, with our late vice-president, Mr. Cadwallader J. Bates. He entered into the investigation with enthusiasm, and recognized the deductions as to change of plan and as to the great hall. This information he subsequently embodied in the address delivered on August 1, 1899, at the commemoration of our fiftieth year of occupancy of the castle,<sup>12</sup> and, subsequently, in his *Descriptive Guide*, published by our society in 1901.<sup>13</sup> In the former reference, whilst admitting fully the evidence of a change of plan, he expressed an opinion that the walls of the tower could not have made much progress at the date of the invasion by William the Lion [1174]. The changed plan could not therefore be connected with that event. But I have mentioned it here to show that I had not overlooked the coincidence. It is the more necessary inasmuch as about forty-eight per cent. of the total cost of the tower had been expended in 1174, and it is by no means so improbable that the height of the building had then reached the stage at which the change in plan occurs. In the second reference Mr. Bates accepts the results of the investigation, observing that, whilst, 'on the whole the evidence is against there having been any upper floor in the great hall,' there seems evidence 'that at one time or another there may have been galleries round some of the walls.' It was in consequence of the doubt here expressed that I have examined and re-examined the lower tier of joist-holes, in company with Mr. Gibson, and have come to the conclusion that the existence of galleries on massive beams at either end of the great hall admits of no doubt. The beams crossed athwart the window splays, just as sir John Marley may be supposed to have ordered his shipwrights to rig up platforms for his 'great ordnance,' as I have said. Be this as it may, it is much to have had, so far, the approval and concurrence of the late Mr. Bates upon the main questions. Would that he had been spared to elucidate this great border hold as it would have been explained under his critical observation !

<sup>12</sup> *Proceedings*, vol. ix. p. 126.

<sup>13</sup> *The Castle of Newcastle, a Short Descriptive Guide*, etc., 1901, p. 31.

In bringing these remarks to a close, I would point out that they are intended merely as a temporary record of the explorations and their results, and as well in a very special manner to indicate the obligation of this society to our warden, Mr. John Gibson. The investigation originated in his suggestion, and the results are due to his keen interest in all that relates to this venerable fabric. This unobtrusive but enduring concern merits our recognition, for it has solved difficulties and has, as in this instance, set at rest disputed and vexed problems.

May I, for one moment further, before leaving the structural difficulties presented to us in this great tower, call attention to the niches in the walls on the stairs of the fore-building. One of these occurs on the left hand just under the mid-stair tower; the other a little higher up the stairs on the opposite hand. These have been persistently referred to as 'holy water stoups.' Now, their position on the stairway might of itself have suggested the real use of these two recesses; an examination of their form and structure conclusively determines what they have been. They were, in fact, without any manner of doubt, lamp niches for lighting the stairway.

Again, the north-west angle of the keep, differing from all three other corners in its almost unbroken solidity, and its substitution of multangular for the simple rectangular plan of the rest, has caused many speculations in accounting for its singularity. I have supposed it to have been intended to carry on its summit the platform for the great catapult of the period, and there is every reason to think this is its original purpose.

Many other problems yet present themselves. There is the aperture, some twelve feet from the ground, on the west wall of the keep, popularly known as 'the sally port.' Its evident utility for the purposes of victualling the garrison, or as an inlet for the admission of munitions of war, does not appear to have been noticed. Nor does the fact that it is an insertion, awkwardly and roughly hewn through, so as to avoid the buttress against which it opens. There is, again, its apparent contact with the works shown in the view of the ruins of the Bailey gate.

These, and other points, yet call for investigation on the part of our members, to whom, however, I must now apologize for the length of these observations.

## V.—ANCIENT DEEDS RELATING TO GUNNERTON.

(Communicated by the Right Rev. bishop Hornby, vicar of Chollerton.)

I venture to send you copies of MSS. on parchment that I have discovered amongst the papers of my predecessor and grandfather. I was hunting for the trust deed of our national parochial schools, and rummaging at the bottom of a drawer I came across a parcel labelled 'ancient deeds relating to Gunnerton.' The paper in which the MSS. were folded was a copy of the *Morning Post* of 1847.

I have no notion how the MSS., dating from the thirteenth century and onward to the seventeenth, have been preserved so long—but they must have passed into the possession of the Rev. Christopher Bird, my grandfather, when he purchased the estate of Gunnerton from Mr. Beaumont.

I took the MSS. up to the British Museum as I was unable to decipher them myself. The substance of them may have been published before in the *History of Northumberland* (Chollerton Parish), but I am not aware of the fact. Indeed, I do not think that my immediate predecessor the Rev. Canon Bird was aware of the existence of the papers.

I shall be interested to know whether they throw any fresh light upon the history of old families in the north.

I think you know that I came across the tombstone of one who, I believe, was the last of the Herons of Chipchase. The stone is in the floor of the parish church, Surfleet, Lincolnshire.

There is a place called Gunnerby (or Gunwarsby) in Lincolnshire on the Watling Street. I wonder what is the connecting link with Gunnerton in this parish—also on the Watling Street.

No. 1.—Grant by Peter de Gunwart[on] to Adam Baret, for his homage and service, of a toft and croft lying between the house of Gilbert and the house of Robert de Bent[on] in the vill of Gunwart' [Gunnerton, co. Northumb.] and ten bovates of land in the territory of the same vill, beginning from Gooles up to Jerdenbury, and from Jerdenbury eastwards to Holden, and southward to Inflasches, and westward to the land of the church, and from the land of the church to Jerdenbury: with common of pasture. Paying yearly one pound of pepper, or eight pence within the octave of St. Cuthbert in September for all services (with clause of warranty).

Witn. Dom. Robert de Merlay, Roger Bertram, Hugh de Bolbec, H. de Magneby tunc vicfecomite] Otwey de Lyle, G. fil G., Gnrdr[an] Her, Robert de Wiccestre, Simon de Bruntoft, Robert de Cornhou, Peter de Lyle, John de Midilt[on], and many others.

Undated. [12-15 Henry III., 1227-1230.]

Vellum. Latin.

No. 2.—Quitclaim by Robert fil. Ricardi de Siperwas to Ralph fil. Willelmi de Essindene, his kinsman, of all the land which he held from the said Ralph in the vill of Gunnwarton, for which quitclaim the said Ralph has given him four marks of silver and an acre of land in Essindene.

Witnesses, ..... de Insula, Richard de Colewelle, Orm de Bromhope, John de Shuineburne, ..... de Shuineburne, Derric de Cunwartun, Eustace de Bentona, and many others.

Undated [*circa* 1230].

Vellum. Latin.

No. 3.—Lease by Michael de Esshynden to Dom. Henry de Hauerington, knt., of all his messuages, lands, meadows, woods, etc., which he had on the day of these presents in the vill of Gunwarton [Gunnerton], to hold for a term of 6 years, at a yearly rent of five marks at the feasts of Pentecost and St. Martin-in-the-winter, the first payment due at Pentecost, 1348, the lessee agreeing that if the rent shall be in arrear for 40 days after any term (if he should be at the time within the county of Northumberland) the said Michael may enter and retain the said messuages, etc. And it is agreed that if the rent should be in arrear and the said Henry be out of the county, that the bailiffs of the two parties shall levy from the goods and chattels found in the said tenements, in the discretion of the said bailiffs and with as little detriment as possible to the said Henry: and at the end of the term the lands, etc., to be given back in the same condition as they were when leased, namely, so many acres lying fallow, so many acres manured, etc.

Dated at Gunwarton, 10th May, 1348.

Seal of brown wax, containing shield of arms.

Vellum. Latin.

No. 4.—Grant by Thomas de Swynburn, knt., to John de Eston, vicar of Pont Eland [Ponteland, *a.e.* Pont Island], John de Kylingale, John de Kyrkeby and Sampson Hardyng, of his manor of Gunwarton [Gunnerton, co. Northumb.], with all its appurtenances in the vill of Gunwarton, to hold for ever: with clause of warranty.

Witn., Robert Heroun, John de Felton, John de Kylburn, Robert Claueryng, knts., William de Carnaby, William de Elmeden, John Heroun, and others.

Dated Monday aft. the F. of St. Nicholas [6th Dec.], 15 Ric. II. [1391].

Vellum. Latin.

No. 5.—Power of attorney from Thomas de Swynburn, knt., to William de Carnaby, John Eryngton, Adam de Bolton and John de Attelowe, to deliver seisin in his name to John de Eston, John de Kylingale, John de Kyrkeby and Sampson Hardyng, of his manor of Gunwarton [Gunnerton].



Dated at Gunwarton, Monday aft. F. of St. Nicholas [6th Dec.], 15 Ric. II. [1391].

Vellum. Latin.

No. 6.—Quitclaim by Thomas de Cornorth, knt., to John de Eston, John de Kelingale, John de Kyrkeby and Sampson Hardyng of all his right in the manor of Gunwarton [Gunnerton], with all appurtenances in the vill of Gunwarton, co. Northumb., which he lately acquired by grant and feoffment from Robert de Swynbourne, his brother, together with all rights belonging to the same manor.

Dated at Horkesley, in Essex, Sunday, F. of the Holy Trinity [1<sup>st</sup> June] 16 Ric. II. [1393].

Seal of red wax, broken and the arms on shield defaced.

Vellum. Latin.

No. 7.—Quitclaim by John Kyrkby, de Hauthor<sup>n</sup> [? Houghton] to John Fenwyck of all his right in the manor of Gunwarton [Gunnerton].

Dated at Gunwarton, 6th May, 1 Hen. V. [1413].

Seal of red wax, broken.

Vellum. Latin.

This charter has been gnawed at the edges by rats.

No. 8.—Release by Sampson Hardyng to John de Fenwyk, 'true heir and tenant and in full possession of the manor and vill of Gunwarton' [Gunnerton], co. Northumb., of all his rights in the said manor and vill.

Witn., John de Woddryngton, William de Swynburne, Robert Lisle, knts., William de Carnaby, Robert Raymes, John de Strothir, Nicholas Turpyn, Robert Horsle, John Eryngton and Symon de Weltiden, and others.

Dat. at Gunwarton, M. aft. F. of St. Hillary [13 Jan.] 9 Hen. V. [1422].

Fragment of red seal.

Vellum. Latin.

No. 9.—Release by William Hardyng to John de Fenwyk, esquire, of all his right in the manor and vill of Gunwarton with all its members and appurtenances in co. Northumberland which John de Eston, clerk, and John de Kirkby, John de Killyngalle, all deceased, and Sampson Hardyng, father of the said William, now dead, but who survived the aforesaid John de Eston, John de Kirkby, and John de Killyngalle, acquired by feoffment of Thomas de Swynburn, knt., to the use of the said John de Fenwyk.

Witn., William de Carnaby, Henry de Fenwik, sheriff of Northumberland, Simon de Welden, Nicholas Turpyn, William Laweson, of Cramlyngton, and others.

Dat. 20th Oct., 7 Hen. VI. [1428].

Seals of William Hardyng and William de Carnaby, broken.

Vellum. Latin.

No. 10.—Deed of sale by sir Francis Radcliffe, of Meldon, co. Northumb. baronet, to Thomas Errington, of Bingfield, gent., of a messuage, tenement or farmhold in Gunnerton, now in the possession of Cuthbert Heron, with covenant to assure the same by fine or other conveyance, provided the said sir

Francis or Dame Catherine his wife be not compelled to travel out of the county, etc.; and power of attorney to William Magdowell, the elder, of Gunnerton, to deliver seisin of the said property to the said Thomas.

Dated 13th December, 1665. With signature and (fragment of) seal of sir F. Radcliffe.

Attested, on the back, by Thomas Bradley, John Canonier, and Samuel Banckes.—And the seisin attested by William Mackdowell, Edward Coxon, Bartholomew Kook, and Edward Olliver.

Vellum. English.

No. 11.—Attached to the last deed of sale (by a pin of the period) are :  
(a) A bond in £30 from the said sir Francis Radcliffe to the said Thomas Errington to observe the covenants in the said deed of sale.

Dated 13th December, 1665. Signed and sealed by sir F. Radcliffe and attested by the same three witnesses.

No. 12.—(b) A bond in £60 from George Shaftoe, of Ingoe, gent., to Thomas Errington, of Bingfield, to observe the covenants in a deed of release of equal date.

Dated 20th December, 1665. Unsigned and unattested.

*N.B.*—This latter bond should have been attached to the deed of release of 20th Dec., 1665 (No. 13 of these Deeds).

Vellum. Latin and English.

No. 13.—Release by George Shaftoe, of Ingo, co. Northumb., to Thomas Errington, of Bingfield, in the same county, of all his rights in the message, tenement or farmehold in the town of Gunwarton [Gunnerton], which is now in the tenure of the said Thomas Errington; with warranty and covenant to assure the same by any surer conveyance if called upon.

Dat. 20th Dec., 1665.

Witnessed, on the back, by Thomas Bradley, John Canonier, Samuel Banckes.

No. 14.—Grant by Thomas Errington, of Bingfield, co. Northumb., to John Shaffto, of Gunnerton, of a certain 'farmehold' in Gunnerton in the parish of Chollerton, now in the possession of Margery Heron, mother of the said John : to hold for term of his life, paying yearly one ounce of pepper to the said Thomas.

Dated 13th March, 29 Charles II. [1677.]

With signature and seal of Thomas Errington.

Witnesses, William Mills, Thomas Mackdowell.

Paper. English.

No. 15.—Lease, for a year, by Arthur Shaftoe of the East Quarter, in the county of Northumberland, gentleman, and John Shaftoe, of Gunnerton, gentleman, to sir William Blackett, of the town and county of Newcastle upon Tyne, baronet, of 'a message, tenement and farmehold lying within the Towne, Townefeilds and Territoryes of Gunnerton,' in return for the payment of five

shillings, in order that, in accordance with the statute for transferring of uses, the said sir William may be in actual possession of the property and so be enabled to accept a grant and release of the same.

Dated 7th Feb., 4 William and Mary [1693.]

Signed by Arthur Shaftoe and John Shaftoe, the latter making his mark.

Attested, on the back, by F. Allgood, John Leadbitter, John Parr and Anthony Sharpe.

No. 16.—The grant and release of the same property in Gunnerton from the same Arthur Shaftoe and John Shaftoe, to sir William Blackett, bart., in consideration of the sum of £70, with covenant to assure the same by any surer conveyance at the will of the said sir William, provided the parties 'required to make the same be not forced or compellable to travell further than the county of Northumberland or Towne and county of Newcastle upon Tyne for the doing and executeing of the same.'

Dated 8th Feb., 1692 [3].

Sealed and signed by Arthur Shaftoe and John Shaftoe, the latter making his mark.

Attested, on the back, by the same witnesses as the lease.

Vellum. English.

No. 17.—Attached to the last deed of grant and release (by a pin of the period) is the usual bond, in £140, between the parties to observe the covenants in the said deed of grant, etc. The day and month are not filled in, but the bond should have been dated on the same day (8th Feb.)

Sealed, signed, and attested as before.

Vellum. Latin and English.

No. 18.—The acquittance by Arthur Shaftoe and John Shaftoe to sir William Blackett, bart., for the sum of £70, the amount of the consideration money for the grant and release to the latter of the messuage, etc., in Gunnerton.

Dated 8th February, 1692 [3].

Signed, sealed, and attested as before.

Paper. English.

## VI.—THE VILLIERS FAMILY AS GOVERNORS OF TYNEMOUTH CASTLE AND OWNERS OF THE LIGHTHOUSE.

Supplementary Paper by HORATIO A. ADAMSON, a Vice-President.

[Read on the 29th July, 1903.]

On the 30th March, 1898, a paper which I had written on the above subject was read at a meeting of the Society.<sup>1</sup>

At the sale of the vast collection of MSS. belonging to the late sir Thomas Phillips, bart., F.R.S., of Middle hill, Worcestershire, and Thirlestane house, Cheltenham, which took place in April and May 1903, at Messrs. Sotheby's sale rooms, in London, lot 848, consisting of 'five original deeds relating to the Villiers family and to their property in the lighthouses at Tynemouth in the reign of Charles II., on vellum,' was purchased by Mr. Thomas Thorne, bookseller, Newcastle-upon-Tyne, and it has since passed into my possession. I have examined these deeds. The most important one is the original settlement made on the marriage of sir Edward Villiers, who was afterwards created earl of Jersey. He was born in 1656, and was the eldest son of sir Edward Villiers, knight-marshal, by his wife Frances, youngest daughter of Theophilus Howard, second earl of Suffolk. His mother acted as governess to the princesses Mary and Anne, daughters of James II., who both became afterwards queens of England. He attended princess Mary to Holland after her marriage with the prince of Orange.

On the proclamation of William and Mary as king and queen, Edward Villiers was appointed master of the horse to the queen (February 1688-9), and in June he succeeded his father as knight-marshal. On 20th March, 1690-1, he was raised to the peerage as viscount Villiers of Dartford and baron Villiers of Hoo. After the queen's death (1694) he was, in 1695, sent as envoy extraordinary and plenipotentiary to the States-General. In 1697 he became one of

<sup>1</sup> See *Arch. Ael.*, xx. 15.

the Lords Justices of Ireland, a plenipotentiary for the treaty of Ryswick, and ambassador-extraordinary to the Hague. On the 13th October, in the same year, he was created earl of Jersey.<sup>2</sup> In December, 1681, he was married to Barbara Chiffinch, a daughter of William Chiffinch of St. Martin's in the Fields, in the county of Middlesex, keeper of the closet to the king (Charles II.). The settlement was made by his father, who was also sir Edward Villiers and elder brother of viscount Grandison. It is dated 20th December, 1681. By it an annuity of £200 a year from the tolls of the Tynemouth lighthouse was settled on sir Edward Villiers, the younger, and the heirs male of his body, and subject thereto as his father, sir Edward Villiers, should by writing or will appoint. In the settlement is recited the grant by king Charles II. of the 13th June in the 17th year of his reign, of the lighthouse at Tynemouth and of the tolls to be received from it, as set forth in the extract from the settlement which is appended to this paper.

There is a notice of William Chiffinch, the father of Barbara Chiffinch, in the *Dictionary of National Biography* (vol. x. p. 238). It states he attended the famous loyal feast of the apprentices at Saddler's hall, 4th August, 1681, and continued in favour under James II., whose fall he did not survive, dying at the end of 1688. To his house at Whitehall the duke of Monmouth had been brought after the battle of Sedgemoor on 5th July, 1685, where he was defeated, and continued there with lord Grey until they were taken to the Tower. The duke was executed on Tower hill on 15th July.

The next deed of interest is a release of the annuity of £200 by Edward lord Villiers, baron of Dartford, in consideration of a payment to him of £2,000 by his brother, Henry Villiers, who was afterwards governor of Tynemouth castle. This deed is dated 10th of June, 1695. When Henry Villiers purchased the annuity he was living at Tynemouth castle, and resided there until 1707, when he died and was buried in the priory burial ground. See the inscription upon his tombstone.<sup>3</sup> There is another release under the hand and seal of dame Martha Villiers. It is dated 30th April, 1691.

<sup>2</sup> *Dictionary of National Biography*, vol. lviii. p. 325.

<sup>3</sup> *Arch. Ael.*, vol. xx. p. 22.

It is probable the sum of £4,000 borrowed by sir Edward Villiers and his son in December, 1681, which is referred to in the deeds of 16th and 17th December in that year, may have been for the rebuilding of the lighthouse and for the building of his own house, which adjoined it.

The light in the Tynemouth lighthouse ceased to be lighted on the 31st of August, 1898. The discontinuance has been regretted ever since by the shipping community. The demolition of the lighthouse commenced in November following, and was completed in January in the next year. In taking down the lighthouse, several stones carved with dog-tooth moulding were found among the stones, clearly indicating that they had been taken from the ruins of the priory church. They are now within its walls.<sup>4</sup> The governor's house has also been demolished, the pulling down commencing in November 1902.<sup>5</sup>

For forty years the War department has been building batteries in Tynemouth castle and mounting guns—pulling them down and erecting fresh batteries. New and costly batteries have been erected and 9·2 inch and 6-inch guns have been mounted, and, as in the past, they will probably do more harm to the inhabitants of Tynemouth than they will ever do to an enemy. Why it should be thought necessary to fire these heavy guns in time of peace in a thickly populated neighbourhood when there are other guns of the same calibre in the district from which practice could take place, is very puzzling.

I append extracts from the two more important deeds, and I submit the original deeds for inspection by the members. In the extracts I have retained the old spelling.

**EXTRACTS FROM THE SETTLEMENT MADE ON THE MARRIAGE OF  
SIR EDWARD VILLIERS, THE YOUNGER, KNT., WITH BARBARA  
CHIFFINCH, DATED 19TH AND 20TH DECEMBER, 1681.**

The parties to the Settlement are the Honble Sir Edward Villiers the Elder Brother of the Right Honble George Viscount Grandison of the first part William

<sup>4</sup> In *Arch. Aet.*, vol. xx. p. 17 is a representation of the governor's house and the lighthouse in 1784.

<sup>5</sup> It is understood a member of the society has purchased the oak panelling from one of the rooms in the Governor's house.

Chiffinch of the Parish of S<sup>t</sup> Martins in the fields in the County of Middlesex Esquire Keeper of the Clossett to the King's Maj<sup>ty</sup> and Martin folles of Gray's Inn in the s<sup>d</sup> County of Middle<sup>x</sup> Esq<sup>r</sup> of the 2<sup>nd</sup> part Sir Edward Villiers the Younger Kn<sup>t</sup> Sonn and heir Apparent of the said S<sup>r</sup> Edward Villiers the Elder of the third part and Barbara Chiffinch only Daughter and Child of the said William Chiffinch of the 4<sup>th</sup> part

It states that his Majesty (King Charles the II) in and by his Letters Patents under the great seale of England beareing date the 13<sup>th</sup> <sup>e</sup> day of June in the 17<sup>th</sup> year of his reign of his especial Grace certain knowledge and meere mot'on did give and grant unto the said Sir Edward Villiers the Elder his heirs and assigns the custody of the Lighthouse then lately rebuilt by the said Edward Villiers the Elder att Tynmouth in the County of Northumberland and the ground and soyle whereon the same was scituated And also the usual accustomed wayes and passages to and from the same together with full power and free liberty Lycence and Authority that he they and every of them should and might continue renew and maintaine the said Lighthouse with lights to be continually Burneing therein in the Night season whereby the Ships passing by night might the better come to their harbours and Ports without Perill And his said Maj<sup>ty</sup> in and by his said Letters Patents for the defraying of the necessary charges and continuall maintenance of the said Lighthouse did further declare and grant that forever after there should and might be Collected and taken And that the said S<sup>r</sup> Edward Villiers and his heirs should and might demand collect have and take the sum of twelve pence of and for every shipp of or belonging to any of his said Maj<sup>ty</sup>'s subjects passing by the said Lighthouse or belonging or trading to the ports of Newcastle or Sunderland or either of them or the creeks or members of the same and three shillings for every shipp of or belonging to any fforeigner or stranger coming or passing by the said Lighthouse To hold the same unto the said S<sup>r</sup> Edward Villiers the Elder his heirs and assignes for ever att and under the yearly rent or sum of Twenty Markes to be paid in the manner as therein expressed.

It states that a Marriage by the Grace of God was intended shortly to be had and solemnized between the said S<sup>r</sup> Edward Villiers the Younger and the said Barbara Chiffinch and that upon the treaty of the said marriage it had been agreed that the said S<sup>r</sup> Edward Villiers the Elder should upon the said Marriage settle on the said S<sup>r</sup> Edward Villiers the Younger his Son and Issues Male of that Marriage the yearly sum of Two hundred pounds out of the said Lighthouse Grounds and houses

It is witnessed that in pursuance of the said Agreement and in consideration of the said marriage and of the great advantages that the said Barbara Chiffinch had and brought to the said S<sup>r</sup> Edward Villiers the Younger in money and lands and Jewells and of the great love and Affection which the said S<sup>r</sup> Edward Villiers the Elder had and bore to the said S<sup>r</sup> Edward Villiers the Younger his Sonn and in consideration of Ten shillings to the said S<sup>r</sup> Edward Villiers the Elder paid by the said William Chiffinch and Martin folles (the Trustees of the Settlement) the said Edward Villiers granted unto the Trustees and to their

<sup>e</sup> In the former paper on the lighthouse the date of the patent is given as the 30th June. It is the 13th in the present deed.

heirs and assigns All that the said Lighthouse soe lately rebuilt by him as aforesaid and all the ground and soyle whereon the same is situated and being and every part thereof with the appurtenances And also the custody of the same Lighthouse and also all ways passages liberties &c granted by the said Recited Letters Pattents And also the said Tolls and duties of twelve pence a ship to be received off and from his Maj<sup>ties</sup> subjects and Three shillings a Shipp to be received from all foreigners and Strangers and all other Tolls Duties and Contributions in and by the same Letters Patents granted or otherwise of and belonging to the said Lighthouse and premises or otherwise Injoyed

To hold the Lighthouse and premises unto and to the use of the Trustees their heirs and Assigns Upon the Trusts thereafter mentioned

And stating that his said now Maj<sup>tie</sup> King Charles the second by his Letters Pattennt under the Great seale of England bearing date the 20<sup>th</sup> day of June in the Six and Twentieth Yeare of his Raigne for the consideration therein mentioned of his Especial Grace &c granted demised and to ffarme lett unto the said S<sup>r</sup> Edward Villiers the Elder All that piece or parcell of Ground containing three roods or thereabouts adjoining to the said Lighthouse then walled in by the said S<sup>r</sup> Edward Villiers the Elder And the Messuage or Tenement thereupon erected and built together with the soyle and wast ground in the Castle there To hold the same unto the said Sir Edward Villiers the Elder his Executors administrators and assigns from the feast of St Michael the Archangel then last past before the date of the same Letters Pattents for the term of 99 years from thenceforth next ensueinge att and under the yearly rent of Five shillings to be paid in manner therein expressed

It is further Witnessed that in further pursuance of the said Marriage Treaty &c the said Edward Villiers the Elder assigned to the Trustees the said piece of ground Messuage or Tenement and soyle To hold the same unto the Trustees for the residue of 99 years Upon and under the Trusts thereafter mentioned

And it was thereby agreed that all the premises should be held by the Trustees in Trust for the said S<sup>r</sup> Edward Villiers the Elder for life and after his death Upon Trust that the Trustees should receive and take the yearly and other rents and thereout pay to the said Edward Villiers the Younger and the heires male of his body lawfully issueing the yearly sum of Two hundred pounds at the feasts of S<sup>t</sup> Michael the Archangell and the Annunciation of the Blessed Lady Virgin Mary by equall portions And to pay the residue or the said yearly rents during the life of the said S<sup>r</sup> Edward Villiers the Younger and while there should be issue male of the body and also the whole rents after his decease without issue male as the said S<sup>r</sup> Edward Villiers the Eider should by writing or Will appoint and in default to the right heires of the said S<sup>r</sup> Edward Villiers the Elder for ever

Then follow covenants for title and against incumbrances (one mortgage made of the premises by the said sir Edward Villiers, the elder, and sir Edward Villiers, the Younger, or one of them, to the right honourable George viscount Grandison, the honourable Henry Howard, esquire, and Richard Brett, esquire, by indentures of lease



and release 'bearing date the 16th<sup>7</sup> and 17th dayes of December, 1681,' for securing the sum of £4,000 and interest in such manner as in the same indenture of release is expressed only excepted).

NOTE.—The settlement bears the signatures of sir Edward Villiers, the elder, sir Edward Villiers, the younger, William Chiffinch, Martin Ffolles, and Barbara Chiffinch, of these the signatures of Villiers, father and son, and Barbara Chiffinch are here reproduced. The seals have all been cut off.

*Edward Villiers*

*Edward Villiers Jun*

*B Chiffinch*

SOME SIGNATURES TO MARRIAGE SETTLEMENT.

EXTRACT FROM THE DEED OF RELEASE DATED 10TH JUNE, 1695.

It is made between the Right Honble Edward Villiers Baron of Dartford in the County of Kent Eldest Sonne and heire of S<sup>r</sup> Edward Villiers late Kn<sup>t</sup> Marshall of His Majesties most Honble household deced of the one part and Henry Villiers of the parish of S<sup>t</sup> Martins in the fields in the County of Middlesex Esq<sup>r</sup> Sonne of the said Edward Villiers of the other part

It recites the will of the said Edward Villiers dated 8<sup>th</sup> May 1685 whereby he devised unto his Sonne Henry Villiers and to his Assignes all that the said Edward Villiers estate and interest of and in his Lighthouse Messuages lands and appurtenances situate in or near Tinmouth upon Speciall Trust and Confidence that the said Henry Villiers should during the continuance and remainder of the term of 99 years which the said Edward Villiers had then to come of and in the said estate pay out of the rents unto the said Edward Lord

<sup>7</sup> The lease of 16th December, 1681, is with the papers but not the release. It bears the signatures of sir Edward Villiers and his son.

Villiers (by the name of Sr Edward Villiers) the sum of £200 per ann: as therein mentioned and it states the said Will was proved in the prerogative Court of Canterbury on the 8<sup>th</sup> of July 1689

It is Witnessed that the said Edward Lord Villiers in consideration of £2,000 paid to him by the said Henry Villiers released the said Annuity of £200 payable out of the said lighthouse and premises

*Henry Villiers*

SIGNATURE TO RELEASE.

NOTE.—The deed is executed by the said Henry Villiers alone and his seal is affixed to it. The signature is here reproduced. It was sealed and delivered in the presence of three witnesses, and is impressed with a sixpenny stamp. As it is not executed by Edward lord Villiers there must have been a duplicate of the deed under his hand and seal.



THE GOVERNOR'S HOUSE, TYNEMOUTH CASTLE, NOW DEMOLISHED.

## VII.—THE EARLY MONUMENTAL REMAINS OF TYNEMOUTH.

By SIDNEY STORY CARR.

[Read on the 26th day of August, 1903.]

Up to the present no complete account and few brief notes have appeared relating to the early monastic remains of Tynemouth. Mr. W. Sidney Gibson, the chief historian of the priory at that place, did not refer to those the existence of which was known at the time he brought out his account of that important Benedictine house.<sup>1</sup> This article, therefore, is intended to furnish a complete catalogue of them. Of pre-Conquest date there are parts of crosses which served as memorials or for the rarer purpose of marking the bounds of sanctuary; while the medieval sepulchral remains consist of an effigy, grave covers, and matrices of brasses.

### THE PRE-CONQUEST STONES.

The fragments of Anglian crosses are four in number; three of these, discovered at different times, are now in the museum of the society at the Blackgate. They have an especial interest for us as the only remnants of the earlier monastic institutions at Tynemouth. In the workmanship of these stones there is an entire absence of the treatment which characterized the school usually termed the Hexham,<sup>2</sup> the chief feature of which is the very graceful conventional treatment of branches and foliage. The Tynemouth crosses follow the more beautiful though at the same time later and more general style of treatment in the north of England, of which the principal feature is the curiously interlacing designs.

<sup>1</sup> *The History of the Monastery founded at Tynemouth*, by W. S. Gibson, F.S.A. 2 vols. W. Pickering, 1847.

<sup>2</sup> A designation given to it owing to some of the stones discovered there in connexion with St. Wilfrid's church being supposed to be executed by the men he brought from Rome in the latter part of the seventh century, or at any rate under a strong Italian influence, of which the chief is the cross of Acca, for descriptions of which by the Rev. W. Greenwell, D.C.L., see either *A Catalogue of the Sculptured and Inscribed Stones in the Cathedral Library, Durham*, p. 53. T. Caldcleugh, Durham, 1899; or *A History of Northumberland*, III. 181.

When it is remembered that the county of Northumberland was in so wild a state at the time of the Conquest that the lands constituting it were not recorded in Domesday book, we may fairly conclude that the arts of the Angles would linger longer than in many other parts of England where it is difficult to distinguish between certain pre- and post- Norman work. Although, therefore, the writer names these stones pre-Conquest, as they belong to the class



Fig. 1.

so termed, it is not absolutely clear that they were all sculptured before 1066.

The following stones are at the Blackgate :—

1.—A fragment of a cross head with one perfect limb : measuring 14 inches high,  $9\frac{1}{2}$  inches wide, and  $4\frac{1}{2}$  inches thick. The carving is the same on both faces. A boss surrounded by a raised ring, the limbs being filled with interlacing work ; radius from centre of the boss 11 inches ; the sides are not decorated (see fig. 10, page 132).

2.—A fragment of a cross-shaft measuring 17 inches high, the faces tapering from 11 to  $10\frac{1}{2}$  inches, the sides from  $9\frac{1}{2}$  inches to 9 inches. All the edges have a single roll moulding, while the faces are divided into panels by a horizontal cable moulding between two roll mouldings. This cross presents interesting and elaborate subjects. In a letter to Mr. Blair, the editor of the society, Mr. Romilly Allen writes :

‘The subject on one side appears to be an ecclesiastic or saint holding a book and standing on the heads of a pair of dragons. I presume that this symbolises the triumph of good over evil, as in the case of Christ trampling on the asp and basilisk (see *Christian Symbolism*, p. 274).<sup>3</sup> The tails of the dragons merge into foliage in a remarkable manner. The centaur, holding a staff or club, is very like the one at Aycliffe. The exaggerated length of the centaur’s left arm, which is extended so as to grasp his tail, as compared with the extreme shortness of the right arm, is worthy of notice. Centaurs occur frequently both in Anglo-Saxon and in Norman art (see *Christian Symbolism*, p. 360). The interlaced work is derived from a six-cord plait. There are other examples of the same pattern at Meigle in Perthshire, and on the large cross-shaft at St. Andrews.’

The carving on one side has been destroyed ; and the panels on the other side are of different heights from those on either face ; they contain two vertical rows of knots of single cords (see fig. 1).

3.—A fragment of a cross-shaft 14 inches high, the face tapering from 12 to 11 inches, the sides 8 to  $7\frac{1}{2}$  inches, sculptured on one face and two sides, the design on the other face having apparently been chiselled off. The face of the cross has been divided into panels ; the fragment only shows part of one of these, which contains two rows of Stafford knots made with double cords. This is perhaps the most beautiful form of Keltic ornament and is to be seen on the St. Oswald cross,<sup>4</sup> a coped grave-cover found in the chapter house at Durham,<sup>5</sup> the Bewcastle cross, and on various other stones and in manuscripts. The sides are decorated with two vertical rows of knots of single cords. This stone was first noticed by Mr. M. Phillips, F.S.A., when some excavations were being conducted during 1895 in Tynemouth castle yard, within which the priory ruins stand. It

<sup>3</sup> *Christian Symbolism*, by J. Romilly Allen, 1887.

<sup>4</sup> See *A Catalogue of the Sculptured and Inscribed Stones in the Cathedral Library, Durham*.

<sup>5</sup> See *The Transactions of the Durham and Northumberland Architectural and Antiquarian Society*, IV. 132, 1896.

was discovered in front of the south west gateway of the large magazine, due south of the west front of the ruins; the mortar clinging to the stone when found showed it had been used as building material<sup>6</sup> (see fig. 2).

At first sight we ponder over these fragments and ask, if they with their symbolic and beautiful designs once formed the greater part of one cross? The whole would then have resembled one of those from Gainford, now in the cathedral library at Durham,<sup>7</sup> more than any other the writer has seen. It seems, however, that the stones have belonged to different crosses. This appears very evident upon examining the mouldings: those on the cross head are narrower and more angular than those on figures 1 and 2, while the roll-mouldings on the latter two also differ from one another in size.



Fig. 2.

4.—The monolith known as the 'Monk's Stone' stands in front of the farmstead called Monk House, which is to the north of Tynemouth priory. Above the socket it stands 6 feet 2 inches high, the faces taper from 18 inches to 14½ inches, the sides from 11½ inches to 9 inches. The stone is clearly of pre-Conquest date; it has been unsculptured to the height of about 16 inches, then decorated on all faces and sides. No design can now be traced on the former. The illustration of the

<sup>6</sup> For a fuller account of the discovery, see *Proceedings*, VII. 163.

<sup>7</sup> See *A Catalogue of Sculptured Stones in Durham Cathedral Library*, 97, No. XXXI.

south side has been reproduced from a recent photograph by Dr. Stephens of North Shields, enlarged. This shows the design with a clearness with which it has not been seen before. It consists of a somewhat angular interlacing pattern interspersed with geometrical figures, divided by a moulding from the top ten inches of the stone, which contains two fabulous creatures ; they face one another, their spiral tails curving inward. What is left of the design on the north side is wholly different ; it is to be traced by standing at a short distance from the cross, and appears to consist in the centre of double cords crossing in the usual way (see plate VI.), their lower extremities twisting back and forming circles, within which other circles have been carved, interlacing the cords. The pattern has been repeated up the shaft, forming ten sets of concentric circles, the treatment resembling that on the upper part of the St. Oswald's cross which has been referred to, the cords then continued forming four sets of Stafford knots. The edges of the stone are so worn that the return of the cords by the circles is conjectured by the writer in order to construct a known Anglian pattern, thus utilizing the groups of concentric circles. The interlacing has been carried up to within seven inches of the top of the stone, where there is a moulding, above which is interlacing work. A roll moulding has also run up each corner of the stone (see plate VI.).

A tradition concerning the stone, relating to medieval times, seems first to be told by Grose in volume iv. of his *Antiquities* :—

‘A monk of this monastery, strolling abroad, came to the house of Mr. Delaval, an ancestor of the ancient family of that name ; that gentleman was then absent on a hunting party, but was expected back to dinner. Among dishes preparing in the kitchen, was a pig. ordered purposely for Mr. Delaval's own eating. This alone suiting the liquorish palate of the monk, and though admonished and informed for whom it was intended, he cut off the head, reckoned by epicures the most delicious part of the animal, and putting it into a bag, made the best of his way toward the monastery. Delaval, at his return being informed of the transaction, which he looked upon as a personal insult, and being young and fiery, remounted his horse, and set out in search of the offender ; when, overtaking him about a mile east of Preston, he so belaboured him with his staff, called a hunting gad, that he was hardly able to crawl to his cell. This monk dying within a year and a day, although, as the story goes, the beating was not the cause of his death, the brethren made it a handle to charge Delaval with his murder ; who, before he could get absolved, was obliged to make over to the monastery, as an expiation of this deed, the manor of Elsig,



THE MONK'S STONE, TYNEMOUTH.

[From a Photograph by Dr. D. H. Stephens of North Shields.]





in the neighbourhood of Newcastle, with several other valuable estates . . . .  
 "Yf perchance one offend a freere's dogge, streight clameth the whole brother-  
 hood, an heresy, an heresy".'

In another part of the same volume Captain Grose gives a plate from a drawing made in 1774 and first published in 1785, showing the face of the stone now towards the east; another piece and the socket are lying on the ground. The latter is inscribed, 'O Horror to Kill a man For a Pige's Head.' The authenticity of this story must be a matter of pure conjecture, though the manor of Elswick belonged to Tynemouth; the story, if true, must be given an early date, as during the parliament of 1376 a petition was presented to king Edward III. and his council, by the mayor and commonality of Newcastle, who said that in 1357 the prior of Tynemouth had claimed Fenham as part of his manor of Elswick.<sup>8</sup> Even earlier, in 1330, a colliery is alluded to, as the prior and brethren of Tynemouth demised to Adam Colewell, from the feast of St. Martin until the same feast a year turned, the colliery at Elswick, called the Heygrove. Numerous other references connect Elswick with Tynemouth.

Another eighteenth century account of the stone is given in Boswell's *Antiquities*. The plate accompanying it is similar to that given by Captain Grose except that it does not portray two gentlemen in the picturesque dress of the period sketching and examining the remains. With regard to the part of the stone shown standing, he says the part 'measuring about three feet and a half has been set up again.' This is probably the piece now standing, though it is 6 feet 2 inches high. The pattern the artist shows is one of which some portions can still be seen on the east face of the cross, but the mistake the artist made was trying to construct a pattern out of the indents, which resemble volutes, instead of following the parts in relief. Boswell does not tell the story of Delaval and the monk. In later times, Hodgson writes, 'I have no doubt the cross was set up, like the *cippi* or shafts of the Romans, as a boundary between the lands of Monkseaton and Tynemouth, or else as an index or guide to travellers.'

<sup>8</sup> Welford's *Newcastle and Gateshead in the Fourteenth and Fifteenth Centuries*, 187.

<sup>9</sup> *Ibid.* 74.

More recently still Mr. George Rippon of North Shields stated: 'This curious relic has undergone frequent changes and removals. The original site was a field to the east of where it now stands, towards Tynemouth, on the ancient road leading to the priory. It was afterwards altered to thirty yards west of its present situation. The potato crops suffered so severely by the trespasses of visitors to view the relic, that the farmer attached horses to the shaft and pulled it from its socket, and split away the side of the pedestal, as it now remains. . . . Mr. Blacklock, in building his farm house, again removed what was still unbroken to the position where it now is to serve as a rubbing stone for cattle. The remaining parts were built into one of the arches of the threshing machine.' The threshing machine was taken down some years ago and the stones from it used for building foundations, and can be no longer seen.

Though romantic and interesting as the medieval and modern history of the stone is its chief interest is that it is pre-Norman.

To whom were these memorials erected? Perhaps one looked down upon the grave of St. Oswin, or some Northumbrian saint or king. As is generally the case there is no inscription to inform us to whom these crosses were raised.

From these early and beautiful crosses we turn to

#### THE MEDIEVAL MONUMENTS.

5.—The monumental recess in the north choir wall of the ruins of Tynemouth priory church was occupied, until recently, by a recumbent effigy. The stone figure lying with the feet towards the east so fitted the recess that although not fixed with mortar it may be concluded that it was *in situ*. The stone was decaying so rapidly that after being moved to be sketched to scale for this article it was placed in the chapel east of the choir (see fig. 3).

The slab, from 3 to 7 inches thick, is of the same soft sandstone as that with which the priory is built. The carving is in low relief, the monument has the appearance of being about the date of the choir, which is Transitional or Early English. It is much worn and has often been wrongly described. The effigy is of a lady; the head rests within a trefoil-arched canopy, the pointed top of which projects

slightly beyond the top of the stone, the features being now hardly recognizable. The figure is clothed from head to foot in a long garment reticulated over the head, there is no wimple or coverchief, and the garment is draped in loose folds and unrestrained by a kirtle. The hands are not raised in prayer in the usual way; probably they have held some object which is now worn away. Viewed in a light bringing out all the shadows, the appearance of the drapery and the general treatment of this the only monument of its class at Tynemouth appears very dignified and graceful.

6.—Since placing the effigy in the chapel its segmental arched recess has been occupied by a grave cover. This slab has been cut out of harder material and is broken transversely across the centre. It is  $5\frac{1}{2}$  inches thick and is here shown drawn to scale. It bears a cross in relief, the head of which is in the form of a cross patée. The stone is much worn, like many of the medieval remains, having been more exposed to the weather than the later discovered pre-Conquest stones (see fig. 5).

7.—Another grave cover has been placed within the monumental recess on the south side of the choir. This slab is cut out of soft stone and is also broken. It is much decayed, which is to be the more deplored as it has been much the finest grave cover within the priory. The monument is from  $6\frac{1}{2}$  to  $7\frac{1}{2}$  inches thick. It bears a cross, the shaft of which is plain. The four arms forming

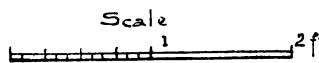


Fig. 3.

bears a cross, the shaft of which is plain. The four arms forming



Fig. 4.

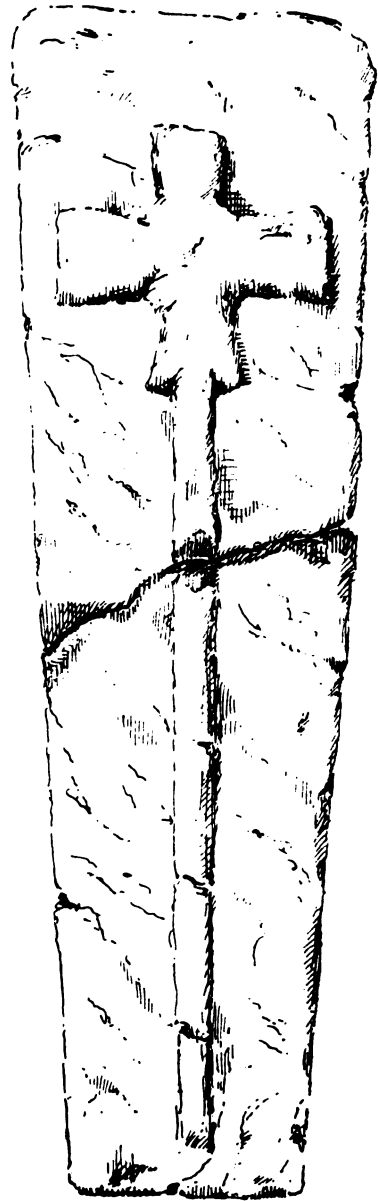
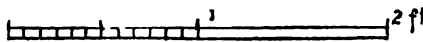


Fig. 5.

Scale.



the head are floriated. It closely resembles many in this neighbourhood, for instance, those at St. Helen's Auckland,<sup>10</sup> Barnard-castle,<sup>11</sup> and Chester-le-street.<sup>12</sup> From part of the shaft being broken and worn away it is now impossible to say whether this has been a Calvary cross or not (see fig. 4).

8.—A small grave cover of sandstone, 4½ inches thick, having a chamfered moulding, and here shown drawn to scale, is now within the priory chapel. It is usual to consider a memorial of this size as the monument of a child, but this is not always the case. The slab is in excellent preservation, though cracked. The floriated cross is similar to that just described (no. 4), except that the shaft is divided at the bottom. The grave cover also bears a sword of a plain ordinary type, indicating it to be the monument of a male (see fig. 6).

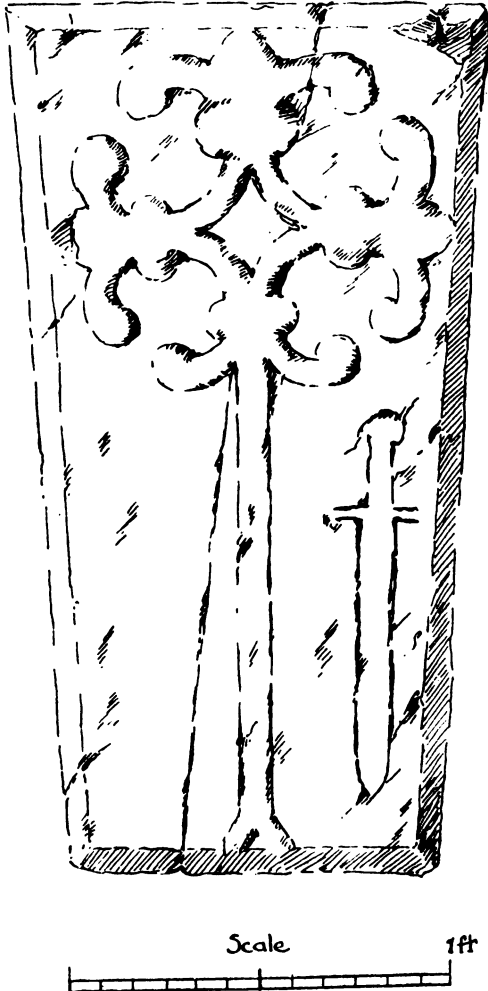


Fig. 6

<sup>10</sup> A drawing of this grave cover may be seen in *The Sepulchral Slabs, Grave Covers, etc., of the Middle Ages now remaining in the county of Durham*, by C. C. Hodges. Privately printed, 1884, plate 7, No. 20.

<sup>11</sup> *Ibid.*, plate 10, No. 27.

<sup>12</sup> *Ibid.*, plate 23, No. 61.

9.—A fragment of a grave cover  $5\frac{1}{2}$  inches thick now lies

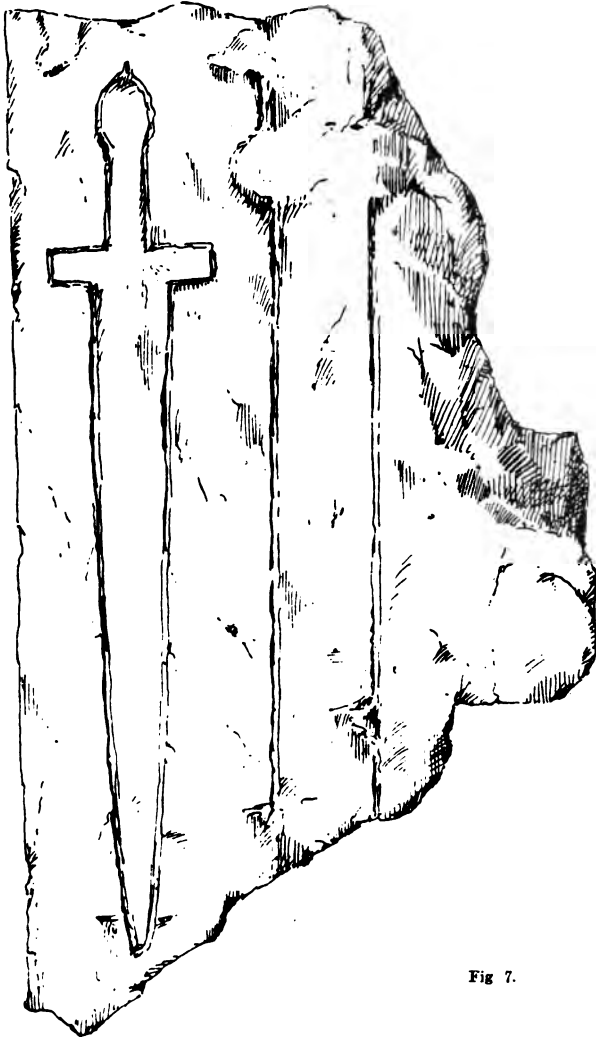
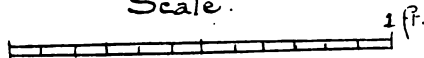


Fig 7.

Scale.



in the south transept. It was found on the south side of the

largest magazine within the castle walls, about a foot below the surface, during the excavations made by the government in 1896,

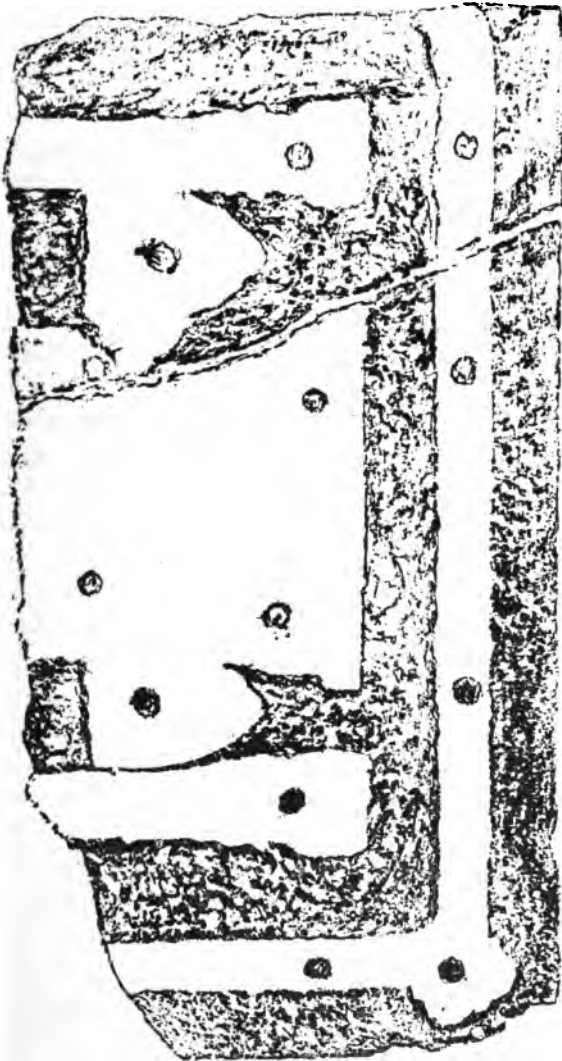


FIG. 8. FRAGMENT OF THE MATRIX OF A BRASS.

which have been already referred to in describing the fragments of pre-Conquest crosses. When the writer rescued it at the time of



discovery in the month of February of that year, the mortar then clinging to it showed the stone had been used as building material. The slab bears part of the shaft, and a point of one of the arms of a floriated cross, also a complete sword. These symbols are formed by incised lines, unlike those on the other grave covers, which are carved in relief (see fig. 7.)

10.—A portion of a matrix of limestone broken into two pieces, which, when fitted together, measure 1 foot 8 inches high, and 3 feet  $4\frac{1}{2}$  inches wide. The indents are the lower quarter of a figure and what seems to be an outline, on the dexter side of the foot, of part of a dog's breast. Between the figure and the shafts, which have supported the canopy, are two shields, and round the outside a border inscription fillet, one of the angle pieces of which is to be seen. The brass and studs have all disappeared. The date is probably the middle of the fifteenth century (see fig. 8).

11.—In the Spital-dene, now known as the Northumberland park, between North Shields and Tynemouth, there is the matrix, of tufa limestone, measuring 5 feet 9 inches in length, by 2 feet 7 inches in breadth, of a civilian and his wife. Below them is the hollow for an inscription, and below it the indents for the smaller figures of their children, one daughter and four sons. The indent for the brass of the dexter figure, that of the civilian, is 2 feet  $7\frac{1}{2}$  inches long. He appears to have worn a long tunic with long loose sleeves, and a hood round the neck, and he stood on a small mound. The incision for the lady is 2 feet  $6\frac{1}{2}$  inches long. Her costume would be a long gown with deep sleeves. She wore a crespine head-dress with small side cauls, and a kerchief thrown over it. The small indents are  $11\frac{1}{2}$  inches. The four sons seem to have been attired like their father, and the daughter like her mother, except that her head dress was simpler. The date of the matrix is early in the fifteenth century, probably 1400 to 1420. It is in capital preservation. All the brass has been stripped off, though the rivets by which it was fastened remain. The treatment is quite plain, there being no canopy or border fillet (see fig. 9).

This stone was discovered in 1885 in the Spital dene, which is within the borough of Tynemouth and on the left hand side of the road from Tynemouth to Preston. When the park was being

laid out the excavators bared the foundations of St. Leonard's hospital from which the dene derives its name. The first stone found was this large slab, which was lying face down where it now rests, obviously as it had been laid for a flooring stone in one of the rooms. The writer was present at the discovery, but it was not until about two years afterwards that the stone was turned over and its monumental character revealed.

The earliest reference to the Spital is in 1320,<sup>13</sup> and the earliest existing register of a burial 1656. The registers of Tynemouth however do not go back beyond 1607.<sup>14</sup>

The matrix may either be *in situ* or have been brought from the priory.

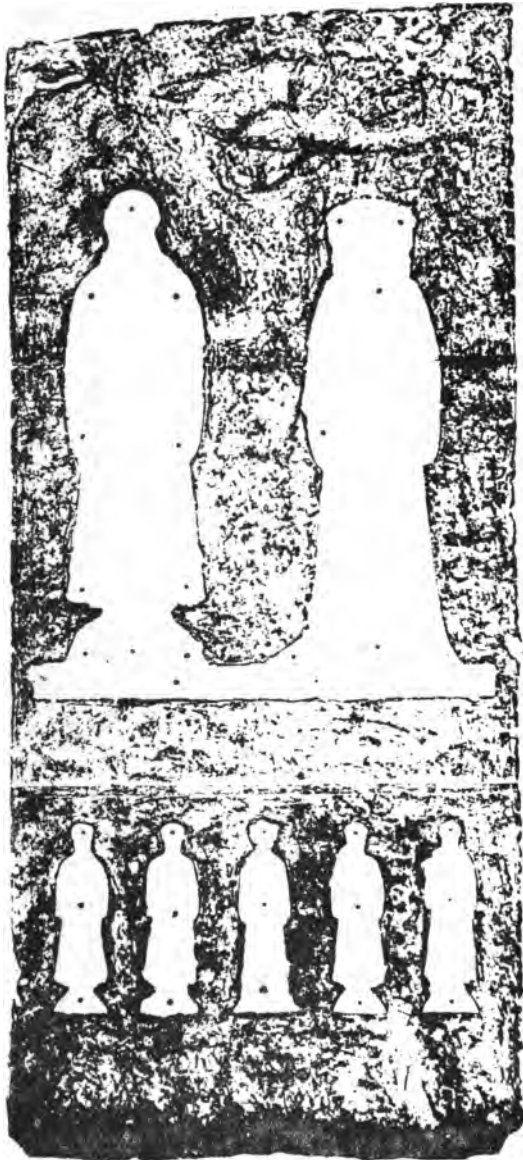


FIG. 9. MATRIX OF BRASS, NORTHUMBERLAND PARK.

<sup>13</sup> See *Proceedings*, III., 35.

<sup>14</sup> See 'Tynemouth Parish Registers,' by H. A. Adamson, *Arch. Ael.*, XIX.

Not one of these seven medieval stones bears an inscription. They are testimony of the work of past days, but to whom they were erected we know not. The drawings of effigies and grave covers must always have a greater interest for us than descriptions, and we are much indebted to our member, Mr. Henry Clarke of North Shields, and his son Mr. H. F. Clarke, for the drawings which accompany this paper. The writer also wishes to thank another member, Mr. Oswin J. Charlton, LL.B., for an account he supplied him of the matrices from which their description is chiefly taken.



FIG. 10. PRE-CONQUEST CROSS HEAD, TYNEMOUTH.

VIII.—DISCOVERY OF ROMAN INSCRIPTIONS, ETC.,  
AT NEWCASTLE.

1. A ROMAN ALTAR TO 'OCEANUS' AND ALTAR BASE FROM THE  
TYNE BRIDGE.

(a) BY R. OLIVER HESLOP, F.S.A., ONE OF THE SECRETARIES.

[Read on the 27th May, 1903.]



Divers have been employed by the River Tyne Commissioners for some time past in clearing obstructions from the north channel at

the Swing bridge. When thus engaged last Wednesday, they found a Roman Altar and a detached base stone embedded in the river bottom. Mr. James Walker, C.E., the river engineer, at once appreciated the nature of these relics, and by his order they were immediately removed to a place of safety. Obligations are due to him for allowing free and full examination of the stones, and for the care exercised by him in their preservation.

The altar is 4 feet 3 inches high, measuring  $19\frac{1}{2}$  inches across its base and an equal width across its capital. From front to back the base measures  $11\frac{3}{4}$  inches, and the capital  $11\frac{1}{2}$  inches. The connecting shaft is 2 feet  $3\frac{1}{2}$  inches high and 16 inches across its face, by 8 inches from back to front. Base and shaft and capital unite in a form of symmetrical, or, it may be said, even of graceful proportions ; whilst the junction of each member is graduated by a band of simple ogee moulding.

The face of the shaft is decorated with a moulded panel occupying almost its entire surface, measuring 1 foot 9 inches high, by  $9\frac{1}{2}$  inches wide, between the inner beads. The panel encloses the representation of a ship's anchor boldly sculptured, the surface being deeply sloped to bring the carving into relief. The shank of the anchor is surmounted by a ring, swivelled on a head. The two arms of the anchor appear to have been flattened towards their points. A projection below the crown is pierced by a hole, possibly an arrangement used in tricing up the anchor when it had reached the ship's hawse-hole. The representation of an object so familiar, complete in all its details, appears significant, not only of the early development of the typical form here shown, but of its long survival, for it can hardly be said to have been even yet superseded. It will be seen, too, that we have here an example of forged iron work which could be produced only by handicraftsmen of great skill in their trade.

Each side of the altar shaft is relieved by a blank moulded panel, the depth of eight inches allowing no room for further sculpture. But the absence of elaboration is in keeping with the general design, adding greatly to its effect. The altar is plain at the back. A tenon at its foot shows that it had fitted into the socket of a separate base stone.

The volutes on the capital have been broken away by damage at

an early period ; but the focus on the top has been left almost intact. It is rectangular in form and is surrounded by a prominent lip.

Across the face of the capital, a narrow ansated panel is lettered with the first portion of the dedicatory inscription. The words are

OCIANO LEG

The lettering is well cut and perfectly legible. Between the two words there is a minute leaf stop, point upwards. In the panel below, reading alternately on either side of the anchor, are the letters

VI

VI

P

F

Expanded the inscription reads : OCIANO LEGIO SEXTA VICTRIX PIA FIDELIS. 'To Oceanus, the Sixth Legion, the Victorious, the Pious, the Faithful [dedicates this altar].'<sup>1</sup>

The second stone brought up from the river bed is evidently the loose base of an altar. Its upper edge is surrounded by an ogee moulding and its top recessed to receive a superstructure. The altar to Oceanus being placed on this base was found to be too broad for it, and the two stones were set apart again, the supposition being that they were not adapted for each other.

A casual examination of the Oceanus altar immediately suggested its correspondence with the Neptunus altar in the Black-gate museum. The latter was dredged up when the works of the Swing bridge were in progress. It is shown on page 133 on the left, and is illustrated in a preceding volume,<sup>2</sup> and a comparison with the newly discovered altar will show an identity of design and execution in the two. A careful measurement confirms this, for each answers to the other in every particular dimension. Both altars were found at the site of the Aelian bridge and have been in all probability connected in some way with that structure. They are twin productions, if not from the same chisel, certainly from one and the same design. The conclusion is a natural one ; that they originally furnished the right and left

<sup>1</sup> The *Legio Secunda Augusta* was sent to Britain in the time of the emperor Claudius [?]. The *Legio Sexta Victrix* left Spain in A.D. 70 for the Lower Rhine in Germany, whence in 120 it was sent to Britain ; in 89 it acquired the epithet of *pia fidelis*. The *Legio xiii. Gemina* came to Britain in 43 from Germany, and returned thither in 70. The *Legio xv. Valeria Victrix* was sent to Illyricum in A.D. 10, thence it went to Cologne, where it remained till 43, when it was sent to Britain.

<sup>2</sup> *Arch. Ael.*, XII., p. 7.

side of a sanctuary dedicated to the deities typified on the faces of the stones. Neptune, 'the earth shaker,' rode upon, if indeed he did not rule, the waves. Oceanus was not only omnipresent at sea, venerated as father of all the gods, but was revered as presiding over the tributary rivers. He it was that the seafarer might propitiate before setting forth. The incoming sailor remembered Neptune, as the Batavian troops at PROCOLITIA remembered how he had brought them safely over the North Sea when they left us his form sculptured in repose.<sup>3</sup> Thus it was that these deities had their shrine in one house, where he that came remembered the tutelary Neptune or he that fared forth bespoke the grace of Oceanus.

Looking on the faces of these twin altars we are reminded of this coming and going at the Quayside. They recall to us the fears and hopes that animated the embarking and the incoming travellers of that far-off time. Their votaries would include the civilian on business and the soldier on service. To them, too, would in all likelihood resort veterans of the Cohort of Aelian Marines, who won their diploma of citizenship in manning the fleet that may have sailed from under the walls of PONS AELII. And these altars are still typical of the port of Tyne and of its metropolis at Newcastle. For, as in the past, so in the present, we are found linking our fortune with Neptune and great Ocean.<sup>4</sup>

(b) BY COMMANDANT R. MOWAT OF PARIS.

[Read on the 30th September, 1903.]

The discovery of the twin altars, respectively dedicated to Neptunus and to Oceanus by the sixth Legion Victrix, at the very spot where stood the old Roman bridge, is suggestive of comments which, even after the able paper of Mr. Heslop, are not near being exhausted.

<sup>3</sup> See *Arch. Aeliana*, XII., p. 76.

<sup>4</sup> The Oceanus altar and the base stone have since been presented to the Society by the River Tyne Commissioners. The base appears to be that intended originally for yet another altar. An extemporized base of wood has accordingly been made for the Oceanus altar, and the newly-found stone base has been temporarily set under the Neptunus altar in the Black-gate museum. Both altars now stand face to face on the step at the entrance of the east window recess.

From this remarkable coincidence and from the evident similitude of their structure, it is but natural to draw the consequence that they were intended to serve as extra ornaments to the *Pons Aelius* itself, at each side of the entrance of which they were symmetrically erected, most likely near the landing-place of the legion after crossing the Germanic ocean, when, quartered at VETERA (actually Xanten in Holland), it was ordered to proceed to Britain, and most likely headed by Hadrian himself, who was at that moment on his visit to Lower Germany. This took place in the year 121 according to Lenain de Tillemont, or rather in 122 according to the last researches of Hertzberg and of Dürr resumed by Goyau.<sup>1</sup>

The legion, or at least a strong detachment of this corps, was at once engaged in the building of the bridge, in pursuance of the plan and under the eyes of the emperor; hence the denomination *Pons Aelius* derived from the gentile name of P. Aelius Hadrianus.

Altars consecrated to Neptune are relatively common, but the case stands different with regard to Oceanus; till the present not another altar bearing this name is recorded, either in Roman or in Greek epigraphics. Such a scarcity renders the Newcastle altar so much more interesting, since it brings back to our mind the historical instance of Alexander the Great erecting altars to the same deities, *Poseidon* and *Okeanos*, when he reached the shores of the Indian Ocean.<sup>2</sup> This invaluable monument testifies that Hadrian's army at the extreme northern end of the Roman empire meant to renew the act accomplished by the Macedonian soldiers at the southern limit of their conquests.

Since I sent my note about the twin altars dedicated to Neptune and to Oceanus, I have had the opportunity of examining in the Cabinet des Médailles de la Bibliothèque Nationale some coins of

<sup>1</sup> Hertzberg, *Histoire de la Grèce sous la domination romaine*, traduite par Schürer, etc., 1886-1890, II. p. 305, n. 1.—Dürr, *Die Reisen des Kaisers Hadrian*, 1881, p. 36 (*Abhandl. des arch. epigr. Seminars*. Wien).—Goyau, *Chronologie de l'empire romain*, p. 193.

<sup>2</sup> Arrian, *Indica*, 18.—Diodorus Siculus, xvii., 104.—Q. Curtius, ix., 9.—Plutarch, *Alex.*, lxvi. Arrian's words deserve a special quotation: 'He (Alexander) sacrificed to the gods which he used to serve by inheritance, or which were prescribed to him by the oracle, namely, Poseidon (Neptune), Amphitrite, the Nereids and even Okeanos himself, and the river Hydaspes, and the river Akesines into which flows the Hydaspes, and the Indus into which flow both the others.



Hadrian, with reverses elucidating admirably these altars. They are described in the classical book of Cohen, *Description historique des monnaies frappées sous l'Empire romain*, 2nd ed., 1880-1890, vol. ii. :—

*Obv.* : IMP CAESAR TRAIAN HADRIANVS AVG. Bust of Hadrian, laureate, to right. *Rev.* : P M TR P COS III. Neptune standing to left, holding a dolphin in the right hand and a trident in the left. *Gold.* (p. 195, no. 1078.)

*Obv.* : Same legend and same bust. *Rev.* : P M TR P COS III. Neptune standing to right, holding a dolphin in the right hand and a trident in the left, leaning his left foot on the prow of a galley. *Gold.* (no. 1080.)



*Obv.* : Same legend, same bust. *Rev.* : P M TR P COS III. The sea-god Oceanus recumbent to left, holding upwards an anchor in his right hand, his left arm resting upon a dolphin or sea-monster, his forehead armed with two crab's claws. *Silver.* (p 198, no. 1109-1112.)

Beside these reverses, showing the very same emblems as figured on the altars, viz., the dolphin, the trident, and the anchor, I noticed another coin which is in close connexion with the above-mentioned :—

*Obv.* : Same legend, same bust. *Rev.* : P M TR P COS III. A river-god recumbent to left, holding a tiller in his right hand, his left arm leaning on an overturned urn, out of which flows a stream of water. *Gold.* (p 199, no. 1113.)

Cohen believes that this figure represents the river *Tiberis*; but in consequence of the conformity of its style with the type of Oceanus, I am rather inclined to recognise the river-god *Tina* (the Tyne). If this guess is right, it would lead me to suppose that an altar dedicated to this river-god possibly still remains embedded in the estuary of the Tyne, and had been erected by Hadrian's sixth legion somewhat with the same view as the altars dedicated by Alexander's army to the river-god Indus, together with those to *Poseidon* and to *Okeanos*. However, should Cohen's idea about the river-god *Tiberis* eventually prove to be right, I would of course adopt it; I would even give it a more precise form by saying that this coin commemorates the building over the river Tiber of the bridge also called *Pons Aelius* (the actual *Ponte Santo Angelo*), whose name revived on the Tiberian banks the fame of the Britannic *Pons Aelius* spanning the Tyne.<sup>3</sup>

2. AN INSCRIBED SLAB MENTIONING THE SECOND, SIXTH  
AND TWENTIETH LEGIONS FROM THE RIVER TYNE.

(a) BY R. OLIVER HESLOP.

[Read on the 26th August, 1903.]

The discovery of an altar dedicated to Oceanus, found on the site of the Aelian bridge at Newcastle, was announced at our meeting in May last. This has been followed by the disinterment, on Thursday the 20th August, of another Roman inscribed stone at the same place and under similar conditions. We are again indebted to the engineer of the River Tyne Commissioners (Mr. James Walker) for the discovery itself, for the courtesy with which he has allowed the stone to be examined, and for the photographs now submitted for your inspection.

The stone before you has been a wall-tablet, inscribed upon a slab of sandstone, close grained and of great hardness. It measures twenty-six inches long by eighteen and three-quarter inches wide; and in its thinness, of about two inches only, it resembles one of our footpath flags. It is, with the exception of a slight crack, in an

<sup>3</sup> Spartianus, *Hadriani vita*, xviii.: *fecit et sui nominis pontem*. Cf. Muratori, *Nov. thes. veter. insc.*, vol. IV., p. MMCXXXIV.: *Pons Aelius*.

almost flawless state ; the depth and conditions under which it has been buried having been so favourable to its preservation that tool marks are yet fresh upon it. Its whole face is covered with a moulded and ansated panel, the centre compartment being filled with lettering occupying nine lines. The inscription reads :—IMP . ANTON[I]NO . AVG . PIO . P . PAT . VEXIL[L]AT[I]O LEG . II . AVG . ET . LEG . VI . VIC . ET . LEG . XX . VV . CON[T]R[I]BVTI . EX . GER . DVOBVS . SVB . IVLIO . VERO . LEG . AVG . PR . P . Expanded thus :—IMP(ERATORI) . ANTONINO . AVG(VSTO) . PIO . P(ATRI) . PAT(RIAE) .



INSCRIBED SLAB FROM THE TYNE

(26 ins. by 18½ ins.).

VEXIL[L]ATIO . LEG(IONIS) . SECVNDAE . AVG(VSTAE) . ET . LEG(IONIS) . SEXTAE . VIC(TRICIS) . ET . LEG(IONIS) . VICESIMAE . V(ALERIAE) V(ICTRICIS) . CON[T]R[I]BVTI . EX . GER(MANIIS) . DVOBVS . SVB . IVLIO . VERO . LEG(ATO) . AVG(VSTI) . PR(O)P(RAETORE) .

As Antoninus Pius became emperor in A.D. 138, and was succeeded by Marcus Aurelius in A.D. 161, the date of the Newcastle inscription falls presumably within the period of 23 years thus represented. Towards the end of A.D. 139 and in A.D. 140 the Propraetor Quintus Lollius Urbicus was engaged in building the Antonine Wall

in Scotland. But the Newcastle stone records the presence of another distinguished imperial legate in the person of Julius Verus. Again, detachments of the three legions here named were the builders of the Antonine Wall. Four of its sections were completed by those of the second legion, four sections by those of the sixth legion, and three sections of its length, with other connected works, were built by those of the twentieth legion. The work done is recorded by each for itself; in one instance only, on the Antonine Wall, are any two of the vexillations associated in one inscription. But in the Newcastle inscription occurs the remarkable conjunction of all three vexillations. A note of Horsley may be quoted in this connexion :—‘ Excepting the Germans,’ he says, ‘ we seldom or never have the *vexillatio* of any but legionary soldiers, either in the Roman historians, or any of our Roman inscriptions in Britain.—The Germans seem to be spoken of as fit for expedition, and are particularly on several occasions famed for their swimming. Tacitus tells us that the Roman soldiers being loaded with their arms were afraid to swim, but the Germans were accustomed to it, and qualified for it by the lightness of their arms and the tallness of their bodies.’ ‘ If,’ continues Horsley, ‘ the notion of *vexillarii* and *vexillatio*, which I have already endeavoured to establish, be right (he had described them as picked men from the legion, despatched on special service, as our grenadiers used to be), we may hence be furnished with a good reason why there should be vexillations of Germans rather than any other auxiliary forces’ (*Britannia Romana*, p. 298).

The large force represented by the association of three vexillations, and their command by an imperial legate, indicate operations of more than ordinary importance. Of their nature and extent our tablet is silent. That it records the execution of work of magnitude, either on the Roman bridge itself or in the adjacent stationary camp of PONS ÆLII, may be reasonably presumed.

The slab has been very generously presented to the Society by the Tyne Improvement Commissioners.

(b) BY F. HAVERFIELD, F.S.A.

[Read on the 30th September, 1903.]

In March, 1872, during the construction of the present Swing-bridge, at Newcastle, the remains of the Roman bridge of PONS AELII (or AELIUS) were detected in the Tyne.<sup>1</sup> In 1875, during the continuation of the same work, a fine altar was discovered bearing the brief inscription, NEPTUNO LE(GIO) VI VI(CTRIX) P(IA) F(IDELIS).<sup>2</sup> Twenty-eight years later, in May, 1903, when the north channel of the Swing-bridge needed cleansing, the twin of this altar was found, bearing an equally brief legend, OCIANO LEG(IO) VI VIC(TRIX) P(IA) F(IDELIS).<sup>3</sup> Finally, in August, 1903, during the same operations, a third inscription has been found of greater length and of considerable interest.

The stone which bears this inscription is a plain ansate slab of a close-grained sandstone, 26 inches long, 19 inches high, and 2 inches thick. It is singularly well preserved and legible throughout. The letters resemble in style those of other inscriptions of the same period: in height they measure  $1\frac{1}{2}$  inches in lines 1, 2;  $1\frac{3}{8}$  to  $1\frac{1}{8}$  inches in lines 3-7, and  $\frac{7}{8}$  inch or 1 inch in the last two lines. They look neat, but are not really well cut and are not free from errors. *Duobus* is a blunder for *duabus*—unless some word like *exercitibus* has been omitted—and letters have been overlooked in cutting lines 3 and 8. Here the workman seems to have first drawn or painted the letters correctly on the stone, but in cutting, VEXILL has been carelessly reproduced as VEX IL (x unfinished), and a tied T and I have been left out of CONTRIBVTI. I have myself examined the stone: it has been given by the Tyne Commissioners to the Blackgate collection. The text is as follows:—

IMP. ANTONINO AVG(VSTO) PIO P(ATRI) PAT(BIAE), VEXILLATIO  
LEG(IONIS) II AVG(VSTAE) ET LEG(IONIS) VI VIC(TRICIS) ET LEG-  
(IONIS) V(ALERIAE) V(ICTRICIS), CONTRIBVTI EX GER(MANIIS) DVO-  
BVS, SVB IVLIO VERO LEG. AVG. PR. PR.

<sup>1</sup> Bruce, *Arch. Ael.* x. 1; *Lapidarium*, p. 461.

<sup>2</sup> Catalogue of the Blackgate Museum, No. 13; *Ephemeris*, iii. No. 199.

<sup>3</sup> *Proceedings*, third series, i. 50. I imagine that *Ociano*, for *Oceano*, is simply bad spelling: inscriptions give other instances, *dine* for *bene*, *mimoriam* for *memoriam*, and the like.

'In honour of the Emperor Antoninus Pius, erected by a draft of the legion II Augusta and the legion VI Victrix and the legion XX Valeria Victrix, levied from the two provinces of Germany, under Iulius Verus, governor.'

The inscription is couched in a common form, such as is often used to commemorate a building, though, in accordance with the unimaginative and practical character of Roman military epigraphy, the actual work need not be mentioned.<sup>4</sup> In this case, however, the addition of the phrase *contributi ex Germaniis* suggests another reason. The men who set up the slab had (as they state) been sent from the Rhine to replenish the three legions which garrisoned Britain, and the slab records their arrival in our island. Presumably they had come over-sea, had sailed up the Tyne, landed at PONS ÆLIUS, and were about to start on their campaigning. A similar voyage, with an inscription at the end, is indicated by the two altars found previously, dedicated to Neptune and Ocean.<sup>5</sup> Such dedications have no meaning at Newcastle, save as offerings after a voyage over open seas. They must commemorate the landing of some draft of the sixth legion, possibly that mentioned on our new stone, possibly some other at a different date, possibly the first arrival of the legion from Germany, which an inscription found in Rome (c. vi. 1549) allows us to date about A.D. 125.<sup>6</sup>

The draft is described on the new inscription in unusual terms.

<sup>4</sup>It might be the bridge itself, for (so far at least as the name goes) the *Aelian* bridge could date as well from Pius as from Hadrian.

<sup>5</sup>By itself the altar to Neptune would not prove this, for Neptune appears in other relations besides those of the sea, and apparently had some connexion with bridges (Domaszewski, *Wd. Correspondenzblatt*, xv. (1896) p. 234). But Oceanus is god of the open ocean and that only, and the altars are a pair.

<sup>6</sup>One detail suits the age of Hadrian and Pius. That age was marked by a Greek literary revival and the dedications of the two altars distinctly betray Greek literary influences. Neptunus as god of the open sea appears chiefly in literature, as the result of identification with Poseidon. Oceanus is obviously Greek and indeed literary Greek. He occurs commonly in Greek literature, from whence he was taken over into Roman literature. But he hardly ever occurs on Greek or Roman inscriptions. Coins of Hadrian show him holding his anchor (but without his name, Cohen 1109-12): eastern Colonial coins of later emperors show him with his name (Eckhel iii. 390, iv. 39; Mionnet, v. 449, and suppl. vi. 152). An undated Mithraic monument found at Hedderheim shows him with his anchor and his name appended (Cumont, *Wd. Zeitschrift*, xiii. 94). A little dedication on a bronze plate, found at York, names 'Oceanus and Tethys' and is in Greek (*Ephemeris*, iii. p. 312); it is unfortunately undatable, but its literary associations are unmistakable and indeed its dedicator, Scribonius Demetrius, may have been a Greek himself.

It is called a *vepillatio* of three legions,<sup>7</sup> though nominally a *vepillatio* is confined to one legion, of which it forms a detachment. Probably, as prof. Mommsen suggests to me, the draft, though definitely designated for the three legions, is treated at the landing place as one draft and not yet three. Equally strange is the term *contributi*, to which only one parallel seems known — an African inscription describing a soldier as CONTRIBUTUS EX LEG(IONE) III GALLICAE (*sic*) IN LEG(IONEM) III AUG(USTAM).<sup>8</sup> Doubtless it denotes some special levy of Germans for service in the British legions. We know that during the second century Britain and Germany to some extent exchanged recruits for legions and for auxiliary regiments : here we seem to have not so much the normal recruits as drafts of special reinforcements.

The date of the inscription may perhaps provide a reason for special reinforcements. It belongs obviously to the reign of Pius (A.D. 138-161), and that reign, though generally peaceful and prosperous, was not without its border troubles. In Britain, in particular, Lollius Urbicus was engaged in serious warfare about A.D. 142, and embodied the lessons of the unrest in the Vallum of Antoninus, reaching from Clyde to Forth. Perhaps, however, our new inscription belongs to a later period in the reign of Pius. Julius Verus, who appears here for the first time as governor of Britain, is otherwise known to us. He governed Syria about A.D. 163-5, and about that time received a rescript from the joint Emperors, Marcus and Verus, which is quoted in the Digest.<sup>9</sup> To this we may now add that he governed Britain, and in full accordance with second-century usage, governed it before Syria. What interval elapsed between his British and Syrian governorships, we do not know. But it can hardly have been as much as twenty years, and we may therefore reject the idea that he immediately preceded or succeeded Lollius Urbicus in A.D. 142. We may more reasonably assign him to the later part of the reign of Pius, and connect therewith one or two other stray facts.

First, Julius Verus seems to be mentioned on a fragmentary in-

<sup>7</sup> It does not seem permissible to take *vepillatio* as an abridgment of *vepillatioes*, arbitrary as the Latin practice of abbreviation is.

<sup>8</sup> *C.I.L.* viii. 3157, Dessau, 2317 : I owe the reference to Mommsen.

<sup>9</sup> *C.I.L.* iii. 199, 8174 (?); Digest xlviii. 16, 18; Prosop. ii. 218.

scription found—only a few days after the Tyne inscription—built into a Roman wall in the Roman fort at Brough near Hope in Derbyshire. This inscription records something—possibly the building or repair of the fort—executed by the *Cohors I. Aquitanorum* SVB IVLIO V . . . . . AVG|PR PR, and I think that we may here reasonably conjecture *Vero*. This evidence of military activity under Verus, both on the Tyne and in Derbyshire, suggests disquiet among the Brigantes rather than campaigns in Caledonia such as those of Lollius Urbicus. If we may further identify him with the Julius . . . mentioned on a Netherby inscription, not improbably of this period (C. 967, *Lapidarium*, 777), we shall be able to trace his activity in another corner of the Brigantian territory.



INSCRIPTION FOUND AT BROUGH, DERBYSHIRE.

Again, Pausanias alludes (8.43) casually to operations against the Brigantes in the reign of Pius. 'Pius annexed (says Pausanias) the larger part of their territory because they commenced an armed raid upon the Genunian region, subject to Rome.' Unfortunately no date is given, the Genunian region (*τὴν Γενουνίαν μοῖραν*) is unknown, and the position of the Brigantes is not very clearly described. Their territory, however, so far as we know, included northern England



from Derbyshire to the neighbourhood of the Tyne and the Solway,<sup>10</sup> and since the building of Hadrian's Wall most of that district must have been within the Roman province. Pausanias, however, speaks of the Brigantes as if they were an external tribe raiding across the border into Roman land. The truth may be that they had been allowed some degree of local autonomy, had now misused it, and lost much of their lands in punishment.

Thirdly, when Marcus succeeded to the Imperial throne, in A.D. 161, he found unrest existing in Britain. Two or three years later, Calpurnius Agricola restored peace. This general is mentioned on three or four inscriptions,<sup>11</sup> but never north of Hadrian's Wall, and it would seem that his operations must have, at any rate, included the Brigantian area. These facts seem to indicate a period of unrest south of Hadrian's Wall, during the years before and after A.D. 161. Perhaps we may append to this some less certain items. It is, at any rate, noteworthy that, so far as our faint evidence goes, two other hill forts besides Brough, those at Slack and Templeborough, seem to have been occupied near the middle of the second century. It is also noteworthy, though I do not know that it has been noted, that the town-walls of the Romano-British town ISURIUM (Aldborough) are quite reasonably referable to the same epoch. They are built differently from the town-walls visible elsewhere in Britain: the style of masonry, and in particular the 'diamond-broaching' of the facing-stones, resembles the masonry of the Walls of Hadrian and Pius, and might therefore be conjecturally attributed to the second or early third century.<sup>12</sup> ISURIUM lies in the open lowlands of the Vale of York. But it is in the Brigantian area: it is not far from the hill-country and it might need fortification if the hill-men rose. It may, after all, be more than a coincidence that the masonry of its walls suits a period when there was unrest near at hand.

<sup>10</sup> Ptolemy: inscriptions to Brigantia at various places between Birrens and South Yorkshire (at South Shields for instance.—ED.) (*Archaeological Journal* xlix. 192): Coin find near Huddersfield (*Numismatic Chronicle*, xvii. (1897) 293). Had their territory lain further north, we might connect the passage with Lollius Urbicus and his annexation of southern Scotland, but there is no evidence of Brigantes in that country.

<sup>11</sup> *C.I.L.* vii. 225, 758, 773, and possibly 334, 774.

<sup>12</sup> The diamond-broaching at ISURIUM is figured, not very correctly, by H.E. Smith, *Reliquiae Isurianae* (London, 1852), plate viii. Specimens from Barrhill, on the Wall of Pius, are figured in the Glasgow Archæological Society's *Antonine Wall Report*, p. 61.

We can now sketch, a little more fully than before, the condition of northern Britain about the middle of the second century. A hundred years had elapsed since Romans first met Brigantes; twenty years had elapsed since Hadrian built his wall from Tyne to Solway. Yet, in A.D. 142, Lollius Urbicus found serious measures needed, and built a second wall from Forth to Clyde, not to supersede the old one but to supplement it and to sever more effectually the subject south from the free north. Still, the south was not crushed. Twenty years later, if I am right, when a new generation had grown up, the Brigantes rose and their subdual lasted several years. And again, twenty years later, we read of fresh revolts, beaten down, not in one year's campaign, by Ulpus Marcellus (about A.D. 184-5).<sup>13</sup> This is not the end of the story, but it is not now my business to follow it.<sup>14</sup> Here it is enough to have shown that in the most prosperous and successful age of the empire, Britain was in part untamed.<sup>15</sup> Perhaps we may praise the Britains for their long fight: I do not know whether we ought to blame the Romans. Britain was distant: war in Britain was costly and difficult: it seemed best to be inefficient. That is the attitude of many great empires. They are too vast for human rulers to secure efficiency in every corner, too vast also for little faults to seem to matter. Like the larger animals of the natural world, they are slow to see little things and slow to suffer from them. Yet the development of the world is towards the extinction of mammoth and mastodon and the increase of the smaller animals.

### 3. TWO STONE COFFINS OF THE ROMAN PERIOD, IN ONE OF THEM HUMAN BONES AND AN URN.

BY FRANK W. RICH.

[Read on the 28th October, 1908.]

On the 6th October, while workmen were engaged in excavating the site for a new warehouse in Clavering place, for Messrs. R.

<sup>13</sup> On Ulpus see *Arch. Ael.* xix., 179. It would be simpler, I now think, to refer *C.I.L.* vii., 504, and the Chesters stone, to the joint rule of Marcus and Commodus, rather than (with Hübner) to the joint rule of Marcus and Verus.

<sup>14</sup> Brough fort was obviously rebuilt at some time later than Pius. Other Derbyshire and Yorkshire forts were occupied in the third century, beside those on the great main roads to the Wall.

<sup>15</sup> Britain was not the only case. Witness, for example, the life of such a man as Julius Vehilius Gratus.

Robinson & Co., Ltd., they laid bare a stone coffin, lying nearly north and south, at a depth of 8 feet 8 inches below the present surface of the street, the subsoil being nearly all of solid clay.

When found, it was complete with coped lid in position, but when the matter was reported to me the lid had been removed, and the contents of the coffin had been interfered with. The coffin appears to be of the ordinary sandstone of the district, the outside measurements being : length 4 feet, width 2 feet  $1\frac{1}{2}$  inches, and depth 1 foot 2 inches. The thickness of the sides and ends is from  $3\frac{1}{2}$  inches to 4 inches, so that the internal dimensions are about 3 feet 4 inches long by 1 foot 4 inches wide. This would point to the fact that, presuming the body was buried entire, it was the interment of a young person. The coped lid is about 11 inches thick at one end and 9 inches at the other ; the apex is not quite central, nor are the two edges quite the same thickness, but this may be owing to indifferent masonry. The lid is also hollowed on the underside. There are four square dowel holes, one at each corner of the coffin, and corresponding ones in the lid. In some of the dowel holes, lead, in a molten state, has been run in.

A very fine urn of characteristic Roman pottery and design, with slip ornament in relief, and measuring  $4\frac{1}{4}$  inches high and  $3\frac{1}{2}$  inches in greatest diameter, the base being  $1\frac{1}{8}$  inches in diameter, and the mouth or neck  $1\frac{5}{8}$  inches, was found at what appeared to be the foot of the coffin, but as far as I could learn, the vessel when found was empty. Strewn on the bottom of the coffin were some bones of a skull, and what appeared to be ribs, but none of the bones of the legs, arms, or vertebrae. Some small remnants of charcoal were found at the foot of the coffin.

A few days afterwards, another stone coffin was laid bare, adjacent to the former coffin, but of much ruder masonry, but it was quite empty. It is made of rough stone about 3 feet 9 inches long, and about 2 feet wide in its widest part, with a cavity about 2 feet 5 inches long 10 inches at the wide end, and 9 inches wide at the narrow end, the cavity being about  $6\frac{1}{2}$  inches deep. This was covered with a plain rough stone lid.

The plate shews the first coffin discovered and the little vase that was in it, both from photographs by Messrs. Thompson & Lee of



COFFIN AS FOUND WITH LID IN POSITION.

[Length, 4 feet; width, 2 feet 1½ inches.]



URN FOUND INSIDE THE COFFIN.

[Height, 4½ inches.]





## IX.—THE SOURCES OF TESTA DE NEVILL.

By J. C. HODGSON, F.S.A., V.P.

[Read on the 29th July, 1903.]

THE great value of the medieval feodary known as Testa de Nevill<sup>1</sup> is well known. It was printed in 1807 by the Record Commission from a transcript then preserved in the King's Remembrancer's office, and those portions of the record which relate to Northumberland were printed or reprinted in 1820 by the Rev. John Hodgson in the first volume of the third part of his *History of Northumberland*.

My attention was recently directly by Mr. Dendy to a statement in the new *History of Cumberland* where the editor of that work explains that, although for the sake of convenience he had retained the familiar name of Testa de Nevill, the translation offered to his readers had been made not from the printed volume but from the 'recently discovered original certificates, officially known as *Knights' Fees*  $\frac{1}{2}$  m. 1, m. 2 . . . the first membrane [of which] contains the roll of King's wards, and the second is the return of the sheriff's inquest of 1212.'<sup>2</sup>

On causing enquiries to be made at the Public Record Office I was informed that not all the original returns of Testa de Nevill are to be found, but only a comparatively small part of the whole is forthcoming. They were written on membranes of various sizes and were then copied into two volumes in which the entries relating to the same county were collected together. This register forms the text printed by the Record Commission.

<sup>1</sup> Various theories have been put forth and many suggestions have been made as to the etymology of the title. Mr. Hubert Hall in a well reasoned article in the *Athenæum*, Sept. 10, 1898, writes that we should perhaps 'regard the famous "testa" as a corrupt rendering of *cista*, one of those large "arks" or record chests which were undoubtedly placed in the receipt of the Exchequer during this period and which, we know, contained a variety of smaller boxes and bags enclosing particular accounts.' He also shows 'that the official who had care of documents of this nature at the Exchequer was the marshal, and we find that John de Nevill was the clerk, or deputy of Roger le Bigod hereditary marshal at the Exchequer from the thirty-first year of Henry III. until, apparently, the tenth year of Edward I.'

<sup>2</sup> *A History of Cumberland*, vol. i. p. 419 (Victoria Histories).

With the original inquisitions which are dated 14 John (1212) are documents of a later period but without date. They were discovered not less than 70 years ago as is proved by a note on one of them dated 12 May, 1835, to the effect that the pages of the printed book had at that date been noted on the returns. Lately, the various documents relating to knights' fees have been calendared, and among them are these returns which have thus been made more accessible.

So many of the original certificates relating to Northumberland as can be found have been transcribed by Miss M. T. Martin and are now printed for the first time. Of the eight certificates it will be seen that all, except the first, contain an approximate if not an exact date. The second is endorsed with the treasurer's receipt of the roll of 14 John; the third is headed 3 Henry III.; the fourth is endorsed with year 11, evidently of Henry III. as the king's grandfather, Henry, is mentioned in the document; the fifth, sixth and seventh are concerned with the aid for the marriage of Henry III.'s sister, who married in 1235 (the sixth has a reference to 1237); and the eighth is headed 26 [Henry III.]. This only leaves the first return without an approximate date, and it is certainly not later than Henry III., if it does not belong to the reign of John.

I. Exchequer Q.R. Knights' Fees †.

Veredictum hominum de Norhamsyr' et Elandesir'.

m. 1.

Rogerus de Audrei<sup>2</sup> tenet medietatem uille de Anecroft et medietatem de Felkindon' et medietatem de Aluereden et facit inde seruicium dimidii militis. Se altero.

Ingeramus de Hulecot' tenet alteram medietatem de Anecroft et de Felkindon' et de Alueredene et facit inde seruicium dimidii militis. Veniat solus.

Domina Matilda de Muscamp' tenet uillam de Rosse in dote et facit inde seruicium dimidii militis. Memorandum

Willelmus de Etona<sup>4</sup> tenet Hetonam et facit inde seruicium dimidii militis. Veniat solus.

Jordanus Bidel tenet Tillemue et facit inde seruicium dimidii militis. Veniat et fiat miles.

Willelmus de Cornehale tenet uillam de Cornehale libere in escambio pro Horneclif et reddit inde per annum xvij marcas. Finis x marce  
Dab[it].-

<sup>2</sup> Cf. Hodgson, III. i. 201.

<sup>4</sup> *Ibid.*, III. i. 202.

<sup>5</sup> *Sic.*



- xv marce** Thomas de Tvisle tenet uillam de Tvisle et uillam de Audehou libere et reddit inde per annum **xx** marcas.
- xl solidi** Eustacius de Neubig' tenet uillam de Neubiging libere et reddit inde per annum **xl** solidos.
- iiij marce.** Costancius de Grandon' tenet iiij carucatas terre in uilla de Grandon' libere et reddit inde per annum **iiij** marcas.
- ij marce** Adam de Thornetona tenet uillam de Thornetona in drengagio et reddit inde per annum **iiij** marcas et facit operationes dominicis de Norham.
- c solidi** Willelmus Masculus tenet uillam de Hupsetligton' et uillam de Tvedemue in socagio et reddit inde per annum **c** solidos.
- v marce** Henricus de Orde tenet uillam de Orde in libero seruicio et reddit per annum **xx** marcas.
- v marce** Johannes de Brafertona tenet terciam partem uille de Scremestun et dimidiam carucatam terre libere et reddit inde per annum **xxv** solidos.
- iiij marce** Willelmus filius Roberti de Scremestun tenet terciam partem uille de Scremestun libere et reddit inde per annum **xx** solidos.
- iiij marce** Robertus filius Ade de Scremestun tenet in uilla de Scremestun **ij** carucatas terre et dimidiam libere et reddit per annum **xv** solidos.
- o solidi** Patricius de Chesewic tenet **iiij<sup>am</sup>** partem uille de Chesewic libere in socagio et reddit per annum **xxxiiij<sup>a</sup>**.
- xv marce pro . . . adra rel'** Johannes de Hagardestun tenuit **iiij<sup>am</sup>** partem uille de Chesewic in socagio et reddit inde per annum **xxxiiij** solidos **iiij<sup>d</sup>**. Johannes mortuus est terra est in manu domini Regis.
- xx solidi** Willelmus filius Ade de Chesewic tenet terciam partem de Chesewic libere et reddit per annum **xxxiiij<sup>a</sup>** **vj<sup>d</sup>**.
- ij marce** Gilebertus de Rehil tenet medietatem uille de Rehil libere et reddit per annum **ij** marcas.
- iiij marce** Adam de Rehil tenet medietatem de Rehil in drengagio et reddit per annum **xx** solidos et facit operationes in dominicis de Fenwic.  
Item Adam de Rehil tenet terciam partem de Gosewic in drengagio et reddit per annum **xiiij** solidos **vj<sup>d</sup>**. et facit operationes in dominicis de Fenwic.
- xxs** Henricus de Gosewic<sup>a</sup> tenet terciam partem de Gosewic in drengagio et reddit per annum **xiiij<sup>a</sup>**. **v<sup>d</sup>**. et facit operationes apud Fenwic.
- xxs** Patricius de Gosewic tenet terciam partem de Gosewic in drengagio et reddit inde per annum **xiiij<sup>a</sup>** **v<sup>d</sup>**. et facit operationes apud Fenwic.  
Johannes de Hagardestun tenuit uillam de Hagardestun libere et reddit inde per annum **c** solidos Johannes mortuus est terra est in manu domini Regis.
- xx marce** Eustacius de Kylei tenet uillam de Kylei et uillam de Berigdon' et uillam de Loulinne in thanagio et reddit inde per annum **ix** marcas et facit operationes que pertinent ei apud Fenwic.

<sup>a</sup> Cf. Hodgson, III. i. 203.

Adam de Buketun tenet in Buketun j carucatam terre et dimidiam <sup>xxx</sup> in drengagio et reddit per annum xij solidos et facit operaciones suas apud Fenwic.

Eudo de Butemunt tenet molendinum de Tvedemue de dono <sup>v marce</sup> Episcopi Philippi et reddit per annum iij marcas. ubi Episcopus non solebat habere nisi iij marcas.

[Endorsed :] In libro. In Comitatu Norhumbrie.

II. Comitatus Norhumberlandie. m. 5.

Inquisitio facta de tenementis et feodis que tenentur in capite de Domino Rege que sunt data vel alienata a capitali seruitio<sup>7</sup> domini Regis.

Comes Patricius tenet Baroniam de Beneleya per seruitium quod sit inborhe et hutborhe inter Regiones Anglie et Scocie. Et preterea tenet iij<sup>ss</sup> uillas in thenagio pro quibus reddit per annum domino Regi xxx<sup>ta</sup> solidos et per eadem seruitia tenuerunt omnes antecessores eius post tempus antiqui Regis H. qui eos feoffauit, et de feffamento isto nihil alienatum est vel datum per marritagium, vel elemosinam, vel aliquo alio modo vnde dominus Rex minus habeat de seruitio suo.

Robertus de Muscampis tenet in capite de domino Rege Baroniam de Wulloner<sup>8</sup> per seruitium iij<sup>or</sup> militum. Et omnes antecessores sui tenuerunt per idem seruitium post tempus domini primi Regis H. qui eos feoffauit, et de feffamento isto nihil alienatum est, vel datum per marritagium, vel elemosinam, vel aliquo alio modo vnde dominus Rex minus habeat de seruitio suo.

Robertus de Ros tenet in capite de domino Rege Baroniam de Werke<sup>9</sup> per seruitium ij militum, et omnes antecessores sui tenuerunt per idem seruitium post tempus domini primi Regis H. qui eos feoffauit, et de feffamento isto nihil alienatum est vel datum per marritagium vel elemosinam, vel aliquo alio modo vnde dominus Rex minus habeat de seruitio suo.

Eustachius de Vesci tenet in capite de domino Rege Baroniam de Alnewic<sup>10</sup> per seruitium xij militum. Et preterea tenet Bodle et Spinlestan, scilicet duas uillas, et molendinum de Warnet, quas dominus Rex H. primus dedit Eustachio filio Johannis antecessori ipsius Eustachii ad incrementum seruitii sui, et omnes antecessores sui tenuerunt per idem seruitium, et de feffamento isto nihil alienatum est vel datum per marritagium, vel elemosinam, vel aliquo alio modo vnde dominus Rex minus habeat de seruitio suo.

Robertus filius Rogeri tenet in capite de domino Rege manerium de Wercwrth,<sup>11</sup> cum pertinenciis per seruitium j militis, et Rogerus filius Ricardi pater eius tenuit per idem seruitium post tempus domini Regis H. patris domini Regis qui predictum manerium ei dedit cum pertinenciis, et feoffauit, et de feffamento isto nihil alienatum est vel datum per marritagium, vel elemosinam, vel aliquo alio modo vnde dominus Rex minus habeat de seruitio suo.

<sup>7</sup> Cf. Hodgson III. i. p. 213.

<sup>8</sup> *Ibid.* p. 210.

<sup>9</sup> *Ibid.* p. 211.

<sup>10</sup> *Ibid.* p. 209.

<sup>11</sup> *Ibid.* p. 204.

Idem Robertus filius Rogeri tenet Baroniam de Waltona<sup>12</sup> in capite de domino Rege per seruitium iij militum, quam dominus Rex J. ei dedit, et carta sua confirmavit, et de tenemento isto nihil alienatum est, vel datum per maritagium, vel elemosinam. vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Idem Robertus filius Rogeri tenet in capite de domino Rege manerium de Robire<sup>13</sup> cum pertinenciis, per seruitium j militis, quod dominus Rex J. ei dedit, et carta sua confirmavit, et de manerio isto nihil alienatum est vel datum per maritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Idem Robertus filius Rogeri tenet in capite de domino Rege manerium de Neuburne<sup>14</sup> cum pertinenciis, et cum seruitio Roberti de Throckelaue, et heredum suorum per seruitium j militis, quod dominus Rex J. ei dedit, et carta sua confirmavit, et de manerio isto nihil alienatum est vel datum per maritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo, et reddit domino Regi per annum xl.

Idem Robertus filius Rogeri tenet in capite de domino Rege villam de Corebrige cum pertinenciis ad feodam firmam, quam dominus Rex J. ei dedit ad firmam, et carta sua confirmavit, reddendo annuatim ad Scaccarium xxx libras de veteri firma, et x libras de incremento per annum.

Hugo de Baillol tenet in capite de domino Rege Baroniam de Biwelle<sup>15</sup> cum pertinenciis per seruitium V<sup>me</sup> militum. Et inde debet ad wardam Noui castelli super Tynam xxx milites. Omnes uero antecessores sui tenuerunt per eadem seruitia post tempus domini Regis Willelmi ruffi qui eos feoffavit, et de feffamento isto nihil alienatum est vel datum per maritagium, vel elemosinam, vel aliquo alio modo vnde dominus Rex minus habeat de seruitio suo.

Ricardus de Vmfraull' tenet in capite de domino Rege Baroniam de Prudehou<sup>16</sup> per seruitium ij militum et dimidii. Omnes uero antecessores sui tenuerunt per idem seruitium post tempus primi Regis H. Idem Ricardus tenet uillam de parua Rihill', reddendo domino Regi per annum xx solidos, et antecessores sui similiter eam tenuerunt post tempus prefati Regis H. primi qui eos feoffavit, et de feffamento isto nihil alienatum est, vel datum per maritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Idem Ricardus tenet vallem de Redesdale per seruitium vt custodiat uallem a latronibus, de antiquo feffamento.

Rogerus de Merlaco tenet in capite de Domino Rege Baroniam de Morpathe<sup>17</sup> per seruitium iiij<sup>or</sup> militum et omnes antecessores sui tenuerunt per idem seruitium post conquestum Anglie, et de feffamento isto nihil alienatum est vel datum per maritagium vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Rogerus Bertram tenet in capite de domino Rege Baroniam de Midford<sup>18</sup> per

<sup>12</sup> Cf. Hodgson III. i. p. 204.

<sup>13</sup> *Ibid.*

<sup>14</sup> *Ibid.*

<sup>15</sup> *Ibid.* p. 212. <sup>16</sup> *Ibid.* p. 206.

<sup>17</sup> *Ibid.* p. 208.

<sup>18</sup> *Ibid.* p. 207.

seruitium V<sup>mo</sup> militum, et omnes antecessores sui tenuerunt per idem seruitium post conquestum Anglie, et de tenemento isto nihil alienatum est vel datum per marritagium, vel elemosinam vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Hugo de Bolebec tenet in capite de domino Rege Baroniam de Stiphord<sup>19</sup> per seruitium V<sup>mo</sup> militum, et omnes antecessores sui tenuerunt per idem seruitium post tempus primi Regis H. qui eos feoffauit, et de feffamento isto nihil alienatum est, vel datum per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Johannes et Jacobus de Calce tenent in capite de domino Rege Baroniam de Bolum,<sup>20</sup> cum fliabus Walteri filii Gilleberti de dono domini Regis I. per seruitium iij militum, et omnes antecessores predictarum dominarum tenuerunt per idem seruitium post conquestum Anglie, et de tenemento isto nihil datum est, vel alienatum per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Johannes Vic(ecomes) tenet in capite de Domino Rege Baroniam de Emelesdona<sup>21</sup> per seruitium iij militum, et omnes antecessores sui tenuerunt per idem seruitium de dono domini Regis H. primi qui eos feoffauit. Et preterea idem Johannes Vic(ecomes) tenet vj bouatas terre in Burgo de Banburg, reddendo per annum vij solidos ad firmam Burgi quas dominus Rex H. pater domini Regis I. dedit Johanni filio Odardi antecessori prefati Johannis, et de feffamento isto nihil alienatum est vel datum, per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Gillebertus de Laual tenet in capite de domino Rege Baroniam de Caluerdona<sup>22</sup> cum pertinenciis per seruitium ij militum, et omnes antecessores sui tenuerunt per idem seruitium post conquestum Anglie, et de tenemento isto nihil alienatum est, vel datum per marritagium vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Robertus Bertram tenuit in capite de Domino Rege Baroniam de Bothale<sup>23</sup> per seruitium iij militum et omnes antecessores sui tenuerunt per idem seruitium de antiquo feffamento, et de feffamento isto nihil alienatum est vel datum per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo. Robertus nunc mortuus est, et terra sua cum Ricardo herede suo est in manu domini Regis.

Adam de Tindale tenet in capite de domino Rege Baroniam de Langeleya<sup>24</sup> per seruitium j militis et omnes antecessores sui tenuerunt per idem seruitium post tempus domini Regis secundi H. de feffamento suo qui feffauit illos, et de feffamento isto nihil alienatum est, vel datum per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Jordanus Hayrun tenet Baroniam<sup>25</sup> suam in capite de Domino Rege per seruitium j militis, et omnes antecessores sui tenuerunt per idem seruitium post

<sup>19</sup> Cf. Hodgson III. i. p. 204.

<sup>20</sup> *Ibid.* p. 205.

<sup>21</sup> *Ibid.* p. 209.

<sup>22</sup> *Ibid.*      <sup>23</sup> *Ibid.* p. 208.

<sup>24</sup> *Ibid.* p. 234.

<sup>25</sup> *Ibid.* p. 203.

tempus primi Regis H. qui eos feoffavit, et de feffamento isto nihil alienatum est vel datum per marritagium, vel elemosinam, vel aliquo alio modo vnde dominus Rex minus habeat de seruitio suo.

Hugo de Morwic tenet in capite de domino Rege villam de Chiuingtona<sup>26</sup> per seruitium j militis, et omnes antecessores sui tenuerunt predictam uillam per idem seruitium post conquestum Anglie, et de tenemento isto nihil alienatum est, vel datum per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Thomas de Diueleston' tenuit in capite de Domino Rege villam de Diueleston<sup>27</sup> per seruitium tercię partis j militis, et omnes antecessores sui tenuerunt per idem seruitium post conquestum, et de tenemento isto nihil alienatum est vel datum per marritagium vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo. Idem Thomas nunc mortuus est, et terra sua cum herede suo est in custodia Roberti filii Rogeri, per commissionem domini Regis quamdiu placuerit domino Regi.

Radulfus de Caugi tenet in capite de domino Rege Baroniam de Ihesemue<sup>28</sup> per seruitium iij militum, et omnes antecessores sui tenuerunt predictam Baroniam per idem seruitium post tempus primi Regis H. qui illos feoffavit, et de tenemento isto nihil alienatum est, vel datum per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Ricardus Surtayse tenet in capite de domino Rege uillam de Goseford<sup>29</sup> per seruitium duarum partium j militis, et omnes antecessores sui tenuerunt predictam uillam per idem seruitium post tempus primi Regis H. qui illos feoffavit, et de tenemento isto nihil alienatum est vel datum per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Alexander de Bradeford' tenet in capite de Domino Rege villam de Bradeford<sup>30</sup> cum pertinenciis, per seruitium j militis, et omnes antecessores sui tenuerunt predictam uillam per predictam seruitium post tempus primi Regis H. qui feoffavit Auenellum de Bradeford antecessorum ipsius Alexandri et de prefata uilla nihil alienatum est, vel datum, per marritagium, vel elemosinam vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Rogerus filius Radulfi<sup>31</sup> tenet vnam villam et dimidiam in capite de domino Rege, per seruitium j militis, quas antecessores sui tenuerunt per sergantariam de forestaria, et dominus Rex I. remouit de sergantaria ad feodum j militem tempore Radulfi patris ipsius Rogeri, et de tenemento isto nihil alienatum est vel datum per marritagium, vel elemosinam, vel aliquo alio modo vnde dominus Rex minus habeat de seruitio suo.

Yuo Tailleboys tenet in capite de domino Rege Baroniam de Hephale cum vxore que fuit Willelmi Bardolf, quam habet de dono domini Regis I., et omnes antecessores predictę domine tenuerunt illam Baroniam in thenagio, et reddiderunt per annum domino Regi l solidos. Dominus uero Rex I. remouit illud

<sup>26</sup> Cf. Hodgson III. i. 206.

<sup>28</sup> *Ibid.* p. 212.

<sup>27</sup> *Ibid.* p. 214.

<sup>29</sup> *Ibid.* p. 206.

<sup>28</sup> *Ibid.* p. 206.

<sup>31</sup> *Ibid.* p. 211.

thenagium tempore Willelmi Bardolf ad feodum j militis, et de tenemento isto nihil alienatum est vel datum per marritagium, vel elemosinam, vel aliquo alio modo vnde dominus Rex minus habeat de seruitio suo.

Michael filius Michaelis et Willelmus Bataille et Robertus de Glentedun qui habent sorores heredes Willelmi de Flammauill' et Matilda quarta soror ipsius Willelmi de Flammauill' tenent in capite de domino Rege medietatem ville de Witingham cum pertinenciis per seruitium vnus speruari sori per annum. et aliam medietatem in drengagio pro xl<sup>s</sup>. per annum soluendis domino Regi.

Dominus H. Dunelmensis episcopus et dominus Philippus Dunelmensis episcopus successor eius tenuerunt wapentagium de Sarberge de dono domini Regis Ricardi de dominico suo de corpore comitatus Norhumbrie.

Dominus Rex Scocie tenet in capite de domino Rege x libratas terre in Tindale de dono domini Regis H. de dominico suo de corpore comitatus Norhumbrie.

Philippus de Vlotes<sup>32</sup> tenet terram que fuit Sewalli filii Henrici, quam terram predictus Sewallus tenuit per sergentariam vt custodiret placita corone. Prefata vero terra committitur eidem Philippo custodienda per breue domini Regis quamdiu placuerit domino Regi.

Nicholaus de Biker<sup>33</sup> tenet in capite de domino Rege duas partes vnus uille per seruitium sergentarie vt faciat districtiones pro wardis Noui castelli super Tynam, et similiter pro debitis domini Regis inter Tynam et Coket, et vt portet breuia domini Regis inter Tynam et Coket, et omnes antecessores sui tenuerunt per idem seruitium de antiquo feffamento. De predicto feffamento nihil alienatum est, vel datum per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Willelmus filius Odonis<sup>34</sup> tenet in capite de domino Rege vnam carucatam terre cum pertinenciis in Banburg per seruitium sergentarie vt faciat districtiones pro debitis domini Regis, et ut portet breuia domini Regis inter Tuedam et Coket, et omnes antecessores sui tenuerunt per idem seruitium post tempus Willelmi Regis ruffi, et de tenemento isto nihil alienatum est vel datum vnde dominus Rex minus habeat de seruitio suo.

Robertus Janitor de Banburg<sup>35</sup> tenet in capite de domino Rege dimidiam carucatum terre in Burgo de Banburg per seruitium iij<sup>s</sup> viij<sup>d</sup> per annum, et antecessores sui tenuerunt per idem seruitium post conquestum Anglie, et de tenemento isto nihil alienatum est, vel datum per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Galfridus Faber tenet in capite de domino Rege dimidiam carucatum terre in burgo de Banburg per seruitium sergentarie, scilicet fabricare ferramenta de carucis castelli de Banburg, et omnes antecessores sui tenuerunt per idem seruitium de antiquo feffamento, et de isto feffamento, nihil alienatum est vel datum, vnde dominus Rex minus habeat de seruitio suo.

<sup>32</sup> Cf. Hodgson III. i. 222.

<sup>33</sup> *Ibid.* p. 224.

<sup>34</sup> *Ibid.* p. 222.

<sup>35</sup> *Ibid.* p. 236.

Thomas de Warnetham<sup>36</sup> tenet in capite de domino Rege vnam carucatam terre in Burgo de Banburg per seruitium xx solidorum per annum, quam antecessores sui tenuerunt per idem seruitium de dono domini H. Regis patris domini Regis I. et de tenemento isto nihil alienatum est vel datum per marritagium, vel elemosinam, vnde dominus Rex minus habeat de seruitio suo.

Gillebertus de Hauill<sup>37</sup> tenet in capite de domino Rege vnam villam per seruitium serganterie de falconaria de terra illa nihil alienatum est, vel datum per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Gillebertus de Calueleya<sup>38</sup> tenet in capite de Domino Rege ij uillas per seruitium xxx<sup>s</sup> per annum, et per thenagium per quod debet dare merchetum, et auxilium, et qualibet, altera die a clauso pentecostes vsque ad vincula Sancti Petri inueniet vnam carectam cum vno trunco ad castellum de Banburg, et illuc debet cariare, et interim nullum aliud seruicium faciet, et debet sectam comitatus. Omnes uero antecessores sui tenuerunt prefatas uillas post tempus Regis Willelmi Bastardi, et de tenemento illo nihil alienatum est vel datum per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Willelmus de Hawelton' tenet iij uillas in thenagio de domino Rege per seruitium xl<sup>s</sup> per annum, et dabit merchetum, et auxilia, et faciet omnes consuetudines spectantes ad thenagium. Omnes uero antecessores sui fecerunt predicta seruitia, de tenemento isto nihil alienatum est vel datum per marritagium, vel elemosinam, vel aliquo alio modo, vnde dominus Rex minus habeat de seruitio suo.

Alanus de Eslington<sup>39</sup> tenet vnam uillam de Domino Rege in drengagium per seruitium xls. per annum, et dabit merchetum, et auxilia, et carriabit trucas ad castellum de Banburg, et faciet consuetudines spectantes ad drengagium de predicta villa nihil alienatum est, vel datum, per quod dominus Rex minus habeat de seruitio suo.

Stephanus de Mulesfen<sup>40</sup> tenet vnam uillam de domino Rege in drengagio per seruitium xxx<sup>s</sup> per annum, et arabit cum caruca sua vno die in quadragesima ad cibum domini Regis, et metet in autumpno per iij dies, quolibet die cum xij hominibus ad cibum domini Regis et carriabit trucas ad Castellum de Banburg, et dabit merchetum, et auxilia, et pannagium de porcis suis, et ibit cum seruientibus domini Regis pro namis capiendis, et pro debitis domini Regis. Omnes antecessores sui tenuerunt per idem seruitium de antiquo feffamento, et de feodo isto nihil alienatum est vel datum, vnde dominus Rex minus habeat seruitium suum.

Thomas de Bedinhale<sup>41</sup> tenet vnam uillam de domino Rege in drengagio per seruitium xx<sup>s</sup> per annum, et arabit cum caruca sua per j diem ad cibum domini Regis, et metet in autumpno per iij dies, quolibet die cum viij<sup>to</sup>

<sup>36</sup> Cf. Hodgson III. i. 223.

<sup>37</sup> *Ibid.* p. 236.

<sup>38</sup> *Ibid.* p. 223.

<sup>39</sup> *Ibid.*

<sup>40</sup> *Ibid.* p. 224.

<sup>41</sup> *Ibid.* p. 223.

hominibus ad cibum domini Regis, et cariaabit truncas ad Castellum de Banburg, et dabit merchetum, et auxilia, et pannagium, et ibit cum seruentibus ad nama capienda pro debitis domini Regis. Omnes uero antecessores sui tenuerunt per eadem seruitia de antiquo feffamento, et de feodo isto nihil alienatum est vel datum, vnde dominus Rex minus habeat seruitium suum.

Inquisitio infra Burgum Noui castelli.<sup>42</sup>

Burgenses Noui castelli dicunt quod infra Burgum nullum est tenementum quod sit datum vel alienatum a domino Rege vel a seruitio suo excepto reddito iij<sup>or</sup> marcarum de quadam terra quam Dominus Rex Ricardus dedit Sewallo filio Henrici, et post obitum ipsius Sewalli Dominus Rex I. eandem terram commisit Philippo de Vlkotes quamdiu placuerit domino Regi.

[On dorse :] Norhumberlandia. In libro. De Testa de Neuill. Continet viij pecias.

[On dorse : at other end of membrane :] Hunc Rotulum recepit Thesaurarius per manum Domini R. de Mariscis die Dominica proxima post festum Sancti Petri ad Vincula anno Regni Regis I. xiiij.

[August 5,  
1212.]

III. Norhumberlandia.

De valletis et puellis.<sup>43</sup>

m. 6.

Matilda de Flauill' est de donacione Domini Regis. Michael de Northkoke et Ryhyll habet custodiam de ea per Robertum filium Rogeri.

Willelmus de Kaluele valletus est et pheyn et debet esse in custodia Domini Regis. Rogerus de Hoddesagr' habet custodiam terre sue, nescitur quo waranto.

Margeria de Vesey est de donacione domini Regis et est maritanda terre sua valet xx libras. De dominabus

Cristiana de Kaluesle maritata est Rogero de Hoddesagr' per Philippum de Vlecotes.

Elizabet Tayllebois maritata est Nicholao de Farindon', nescitur quo waranto.

Willelmus filius Odonis tenet vnam carucatam terre in Banburg', terra eius valet xx solidos. De seriantia

Gaufridus Faber de eadem tenet dimidiam carucatam terre pro ferris Domini Regis de Banburg fabricandis.

Robertus Taylleboys debet esse in custodia domini Regis et mater eius tenet terram suam et finem fecit pro custodia sua habenda.

Simon de Diueston' debet esse in custodia Domini Regis. Stephanus de Segraue habet custodiam nescitur per quem, terra eius valet xx libras. Suthkoke et De valletis

<sup>42</sup> Cf. Hodgson III. i. 237.

<sup>43</sup> *Ibid.* p. 228.



de  
Dominabus

Agnes de Diueston' est de donacione domini Regis et est maritata Roberto de Meyneull' per J. Regem, terra eius valet c solidos.

Matilda de Clauerwrth vidua est et est de donacione Domini Regis terra eius valet xl solidos.

Emma de Aydene est de donacione domini Regis et maritata est Petro de Vallibus per I. Regem, terra eius valet xv libras.

Alina et Aleysia filie predictae Emme maritate sunt Jakobo de Kauz et Johanni de Kauz per I. Regem, terre earum valent xl libras.

Aleys Bertram est de donacione etc. et est maritata Rogero filio Walteri per I. Regem, terra eius valet xx libras.

Alicia de Morewic est de donacione etc. et maritata est Rogero Golafre, nescitur quo waranto terra eius valet x libras.

Mabilia de Clere est de donacione etc. et vidua est, terra eius valet xv libras.

Margareta de Milleburn' est de donacione etc. terra eius valet ij marcas. Vidua est.

Sorores Philippi de Vlotes sunt de donacione etc. et maritate fuerunt ante mortem ipsius Philippi terre earum valent xx libras.

De seriantis

Nicholaus de Biker<sup>44</sup> tenet c solidatas terre per seriantiam scilicet per seruicium ferendi breuia Domini Regis inter Tynam et Koket et faciendi districtionem de warda Noui castri.

Banburg'

Thomas de Warnetham<sup>45</sup> tenet j carucatum terre in Banburg' per I. Regem per seruicium xx solidorum per annum.

Burgus de Nouo castro.

De ecclesiis

Ecclesia de Nouo castro<sup>46</sup> est de donacione domini Regis et Gultbertus de Lascy eam tenet per Willelmum de Lungechamp' qui fuit Justiciarius domini Regis.

De Eschaetis

r'

Dominus Rex habuit in villa de Nouo castro<sup>47</sup> c et x solidos et vj denarios redditus quos dedit Burgensibus eiusdem ville pro terris suis quas amiserunt per fossatum domini regis et preterea de domo Willelmi monetarii x solidos et de alia domo eiusdem Willelmi xl denarios et iste duo domus inciderunt in manum domini Regis H.

f in R'

r'

qui domini Regis pro debito quod Erkenbaldus monetarius ei debuit et dicitur quod vna domus quam Thomas de Karleolo modo tenet que prius non valuit nisi x solidos modo valet xx solidos et alia domus que non valuit nisi x<sup>8</sup> modo valet xl solidos. Et dicitur quod quidam Hugo Beneyt pater duorum puerorum qui sunt infra etatem obiit seysitus de predicta domo et quod Willelmus filius Benedicti pater ipsius Hugonis habuit ingressum in domo illa per priorem de Finkale cui Henricus de Puteaco qui tunc fuit vicecomes Norhumbrie terram illam dedit et Henricus habuit ingressum in domo illa per

R.

Loquendum

Willelmum filium Willelmi monetarii qui illam ei vendidit.

<sup>44</sup> Cf. Hodgson III. i. 229.

<sup>45</sup> *Ibid.* p. 230.

<sup>46</sup> *Ibid.*

<sup>47</sup> *Ibid.*

Item de domo Thorphini<sup>48</sup> viij<sup>d</sup> de quibus Alicia que fuit vxor viij<sup>d</sup>  
Willelmi respondet.

De terra Gilberti Marescalli<sup>49</sup> iij<sup>d</sup> vnde parochiani Sancti Andree iij<sup>d</sup>  
respondent.

Item de domo Walteri tinctoris<sup>50</sup> vj<sup>d</sup> vnde Hawis vxor dicti vj<sup>d</sup>  
Walteri respondet.

Item de domo Willelmi filii Hugonis<sup>51</sup> ij<sup>d</sup> vnde idem Willelmus ij<sup>d</sup>  
respondet.

[On dorse :—] Norhumberlandia. Escheete per manum W. de  
Ebor' die veneris ante Ascensionem Domini anno Regni xj<sup>d</sup>.

Northumberlandia de Escheatis . . . . . \* [May 14, 1227.]

In libro.

Michael filius Michaelis.

\* Illegible.

IV. Exchequer, Q.R. Knight's Fees,  $\frac{2}{3}$ . m. 3

Veredicta de Comitatu Norhumberlandia de eisdem [*i.e.* de valettis et puellis<sup>52</sup>  
que esse debent de custodia domini Regis et de eschaetis et huiusmodi] et  
coram eisdem Justiciariis [*i.e.* in itinere domini R. Dunelmensis Episcopi et  
sociorum suorum] ad eundem terminum [*i.e.* Anno Regni Regis Henrici filii  
Regis Johannis tercio.]

Philippus de Vlecot' tenet manerium de Diuelsunt' quod est in custodia  
domini Regis et ualet per annum xx<sup>li</sup> libras.

Alicia de Stuteuill' est de donatione domini Regis et non est maritata, terra  
eius ualet xl libras.

Alicia de Merlay de donatione domini Regis et non est maritata, terra eius  
ualet c solidos.

Matilda de Haulton' de donatione domini Regis non est maritata, terra  
eius ualet l solidos.

Margeria de Biker' de donatione Regis non est maritata, terra eius ualet xxx<sup>li</sup>.

Alicia Bertram de donatione domini Regis et est maritata Rogero filio  
Walteri per dominum Regem ut intelligunt, terra eius ualet xx libras.

Emma que fuit uxor Walteri filii Giliberti de donatione Regis et est  
maritata Petro de Vallibus per dominum Regem, terra eius ualet x libras.

Anneys de Dineleston de donatione domini Regis et maritata cuidam  
Robillardo per dominum Regem, terra eius ualet c solidos.

Mabilla que fuit uxor Roberti Bertram de donatione domini Regis non est  
maritata, terra eius ualet xv libras.

Alicia de Morewic' de donatione Regis et maritata Rogero Gulafre per  
dominum Regem ut intelligunt terra eius ualet x libras.

De escactis dicunt quod Philippus de Vlecot' tenet Matefen' et Nafreton'  
per seruitium seriantie ut sit coronator valent xx<sup>li</sup> libras.

<sup>48</sup> Cf. Hodgson III. i. 230. <sup>49</sup> *Ibid.* <sup>50</sup> *Ibid.* <sup>51</sup> *Ibid.* <sup>52</sup> *Ibid.* p. 229.

Nicholaus de Biker' tenet Biker' per seriantiam set nesciunt per quam valet c solidos.

Willelmus de Vescy debet esse in custodia domini Regis, terra eius ualet per annum lxxj libras xiiij<sup>d</sup>.

Margeria de Vescy de donacione domini Regis, terra eius ualet per annum xxx libras.

Willelmus Bataille duxit in uxorem quandam dominam que fuit soror Willelmi Flaunuill' que est de donacione domini Regis terra eius ualet xl solidos. Habet eam per Regem ut intelligunt.

Vxor Iuonis Talleboys est de donacione domini Regis, maritata est per dominum Regem, terra eius ualet xl<sup>s</sup>.

Quedam domina que fuit uxor Willelmi de Flaunuill' de donacione domini Regis maritata est Walters de Burdun, terra eius ualet v marcas.

Nicholaus de Rye habet vnam puellam in custodia sua per dominum Regem terra eius ualet iiij marcas.

Quedam domina que fuit uxor Thein de donacione domini Regis maritata est Rogero de Hodeshagh' per dominum Regem, terra eius ualet x libras.

Villa de Mullesfen' est Dringagium domini Regis et est in manu Luce de Risgeford cum herede valet xxx<sup>s</sup>.

Willelmus filius Odonis tenet per seriantiam quandam terram nesciunt per quam, ualet xx<sup>s</sup>.

Gaufridus Faber de Banburg' tenet terram suam per seriantiam fabricandi in castro.

Robertus le porter tenet dimidiam carucatam terre per seriantiam custodiendi januam castri.

De escaetis dicunt quod Luuerbotle est escaeta domini Regis. Johannes de Neouill' tenet illam et valet centum solidos.

[On dorse :—] Norhumberlandia. In libro.

V.

m. 4

Viris venerabilibus et dominis domino Hugoni de Pateshil tesaulario domini Regis et consociis suis Baronibus de scaccario domini Regis suus H. de Bolebec vicecomes Norhumbrie salutem. Noueritis me mandatum domini Regis in hec verba suscepisse H. dei gracia etc. vicecomiti Norhumbrie salutem Quia feoda Baronum que capitales habent honores in comitatu tuo sunt in diuersis comitatibus de quibus auxilium nobis concesserunt ad maritandam sororem nostram Romanorum Imperatori, mandamus illis per literas nostras quas tibi mittimus illas porrigendas quod per literas suas patentes singnificent citra octabas Sancti Johannis Baronibus de scaccario nostro apud Westmonasterium de quot feodis suis tam veteribus quam nouis quilibet nobis soluerit auxilium predictum et quibus et in quibus comitatibus et qui feoda illa tenent et in quibus villis sint feoda illa vt sic scire possimus an totum auxilium nobis fuerit solutum, sicut nobis liberaliter fuit concessum. Et quam plures alii sunt in

comitatu tuo qui singulariter feoda et minora de nobis tenent in capite quibus non scribimus tibi precipimus quatenus in fide qua nobis teneris nomina singulorum qui talia feoda de nobis tenent in comitatu tuo et in quibus villis feoda illa sint, per literas tuas patentes citra predictum terminum significes predictis Baronibus de scaccario nostro. Et similiter nomina illorum omnium qui de nobis tenent per seriantariam uel soccagium, et ubi et in quibus villis sint dicte seriantarie et soccagia et quales sint seriantarie ille distincte et aperte, ita curiose et diligenter premissa omnia exequens, quod ad te per negligenciam tuam capere non debeamus, Teste, etc. Et sciatis quod hoc Breue uenit ad me paulo ante natiuitatem sancti Johannis baptiste.

Ego uero huius mandati executionem cum omni qua potui diligencia et per discretam inquisitionem facere procuravi in forma subscripta.

Jordanus Hayrun tenet in capite de domino Rege per seruicium vnus militis Hadistonam, Colewel, Swineburn' occidentalem, paruam Bentonam, Chirtonam occidentalem, Flatford, de veteri feodo.

Nicholaus de Bolteby et Walterus de Tunstal tenent in capite de domino Rege per seruicium vnus militis Wardun, Fourstansys, Alrewas, Hayden, Langeley, Blencanhishop, Widen, Fetherstanhishalu, de veteri feodo.

Hugo de Morwic<sup>52</sup> tenet in capite de domino Rege West Chiuingtun per seruicium vnus militis, de veteri feodo.

Simon de Diuilhistona<sup>53</sup> tenet in capite de domino Rege Diuilhistun, per terciam partem seruicii vnus militis de veteri feodo.

Nicholaus de Karendun et Elizabet vxor de iure ipsius Elizabet tenent in capite de domino Rege, Heppal, Bikertun, Flotwaytun, Wartun, Tossin et mangnam Tossin, Tyrwit et alteram Tyrwit per seruicium vnus militis, de veteri feodo.

Alexander de Bradeford<sup>54</sup> tenuit Bradeford in capite de domino Rege per seruicium vnus militis de veteri feodo, que quidem Bradeford est in manu domini Regis.

Rogerus filius Radulfi<sup>55</sup> tenet in capite de domino Rege Dicheburn' et alteram Dicheburn' mangnam Ryhil, Kertindun, per seruicium vnus militis de veteri feodo.

Idem Rogerus tenet in capite de domino Rege tres partes de Toggiasden pro x solidis annuatim soluendis pro omnibus seruiciis.

Alicia de Stirap, Hamelinus et Marieria vxor eius Aueray de iure Juliane que fuit vxor eius Thomas de Strattona et Ysabel vxor eius et Constancia heredes Philippi de Vlecotis tenent in capite de domino Rege, Nafertun, Matfen et Louerbothil per seriantariam pro corona domini Regis custodienda infra comitatum Norhumbrie.

Willelmus filius Auenelli tenet de iure Betricie vxoris sue in capite de domino Rege vnam carucatam terre in villa de Bamburg' per seriantariam in

<sup>52</sup> Cf. Hodgson III. i. 234.

<sup>53</sup> *Ibid.*

<sup>54</sup> *Ibid.* p. 235.

<sup>55</sup> *Ibid.*

balliua de Bamburgsair', et est pro seruicio suo intendens negociis domini Regis sicut seruiens comitatus, et debet receipere namia in north de Koket pro debito domini Regis in parco suo.

Comes Patricius<sup>56</sup> tenet in capite de domino Rege Benley, Hiddisley, Edelingham, Lemoutun, Bromdun, Bremtun, Wittun, Schepley, Harop, Wittun, Stantun, Horseley, Windegatis, et Bittun, per inboru et wiboru inter duo regna.

Idem comes tenet in capite de domino Rege Suth Middiltun, et le middest Middiltun, et pro vna villa tenet north Middiltun, et Rodum et hoc totum est drengagium, et reddit domino Regi per annum xxx solidos et tenentes predicti comitis de predictis villis debent talliari cum dominicis domini Regis et faciunt truncagium castello de Bamburg' annuatim.

Johannes de Hawiltun tenet Hawiltonam, Clauerwrht', et Witingtonam in capite de domino Rege in drengagio, et reddit per annum xl solidos, et debet talliari cum dominicis domini Regis, et debet heriet et merchet.

Michael de Ryhil tenet de jure Alicie que fuit vxor eius, Robertus de Glentedun et Cristiana vxor eius, Willelmus de Redham et Constancia vxor eius et Matildis de Flaunuill' tenent in capite de domino Rege, Witingham, Throingtun, Bartun, et medietatem de Glentedun, pro vno niso muer' uel pro dimidia marca pro omnibus seruiciis.

Willelmus de Caluley<sup>57</sup> tenet Caluley et Yetlingtun in capite de domino Rege in drengagio et reddit per annum xxx solidos et facit truncagium castello de Banburg' et debet talliari cum dominicis domini Regis et debet heriet et merchet.

Et Reditarii de Yetlingtun ubicumque fuerint manentes debent per annum xxiiij solidos, et hoc non pertinet ad tenementum predicti Willelmi.

Johannes de Eslingtun<sup>58</sup> tenet in capite de domino Rege Eslingtun in drengagio et reddit per annum xl solidos et facit tale seruicium quale Willelmus de Caluley facit, scilicet facit truncagium castello de Bamburg' et debet talliari cum dominicis domini Regis et debet heriet et merchet.

Gilbertus de parua Ryhil tenet paruam Ryhil in capite de domino Rege et reddit per annum xx solidos et debet talliari cum dominicis domini Regis.

Thomas de Warnetham<sup>59</sup> tenet in capite de domino Rege vnam carucatam terre in villa de Bamburg' de dominico et reddit per annum xx solidos pro omnibus seruiciis.

Thomas de Bedenhal<sup>60</sup> tenet de domino Rege in capite Bedenhal in drengagio et reddit per annum xx solidos et facit truncagium castello de Bamburg' annuatim et debet talliari cum dominicis domini Regis et debet de cornagio xiiij<sup>d</sup>. et de mercheta xvj solidos et heriet xvj solidos et debet arare semel in xl<sup>ma</sup> cum viij carucis ad vnum repastum domini Regis et debet metere annuatim per tres dies in autumpno quolibet die cum viij hominibus ad unum repastum domini Regis et debet pannagium et de foresfacto xvj<sup>s</sup>. et de releuio xvj solidos et sectam molendini domini Regis ad xiiij vas.

<sup>56</sup> Cf. Hodgson III. i. 231.

<sup>58</sup> *Ibid.* p. 237.

<sup>59</sup> *Ibid.* p. 236.

<sup>57</sup> *Ibid.* p. 236.

<sup>60</sup> *Ibid.* p. 237.

Henricus de Mullisfen<sup>61</sup> tenet de domino Rege in capite Mullisfen in dren-gagium et reddit per annum xxx solidos et facit truncagium castello de Bamburg' et debet talliari cum dominicis domini Regis et debet de cornagio xiiij<sup>d</sup> et de mercheto xvj solidos et de Heriet xvj solidos et de releuo xvj solidos et de foresfacto xvj solidos et debet arare semel per annum ad uoluntatem seruientis cum vj carucis ad vnum repastum domini Regis et cariare bladum per annum semel in autumpno cum xij plaustris ad vnum repastum domini Regis et debet metere in autumpno per tres dies annuatim quolibet die cum xij hominibus ad unum repastum domini regis et debet sectam molendini domini Regis ad xiiij vas et pannagium.

Petrus de Strand tenet de domino Rege in capite dimidiam carucatam terre in Bamburg' pro fabro inueniendo ad ferramentum faciendum trium carucarum et debet inuenire j bilo et j bolakys et debet adquirere carbones cum homine domini regis ad predictum ferramentum Rex autem inueniet ferrum.

Dominus I. Rex dedit Roberto filio Rogeri Neuburn'<sup>62</sup> cum pertinenciis pro seruiicio vnus militis cum seruiicio et homagio et consuetudinibus Roberti de Throclau de tenemento ipsius Roberti in Throclau, saluo tamen domino Regi redditum xl solidorum per annum et quod ipse Robertus talliatur cum dominicis Domini regis.

Johannes filius Roberti tenet Corbrig'<sup>63</sup> quod est burgum pro xl libris per annum ad feodam firmam. Ita tamen quod dominus Rex talliat Burgenses eiusdem uille cum dominicis suis comitatus.

Nicholaus de Biker tenet duas partes de Biker et Pampeden vnum vicum vicinum nouo castello in capite de domino Rege per seriantariam et debet recipere et custodire Namia capta pro debito domini Regis in parco suo et cum deliberata fuerint ad uendendum, predictus Nicholaus debet esse unus eorum qui debent ea uendere ad precium domini Regis et debet portare breuia domini Regis inter Tynam et Koket. Et debet attachiare loquelas spectantes ad coronam domini regis vbi seruiens domini Regis presens non fuerit. Et debet esse seruiens ad placitum justiciariorum itinerancium apud nonum castrum.

[On dorse :—] Feoda Comitatus Norhumbrie \

In libro

In libro.

In libro.

VI. transcribitur.

m. 8. d.

Norhumberlande In libro. in Comitatu Norht'.

Hugo de Bolebec vicecomes reddit computum de c solidis de priore de Tinemue de auxilio ad maritandam sororem Regis Imperatori. Et de xx solidis de priore de Brinkeburn' de eodem auxilio. Et de xx<sup>s</sup> de priore de Boelton de eodem. Et de x marcis de priore de Herepedes' [non respondet\*] set respondet inde in magno Rotulo anno xxj<sup>d</sup>.

[A.D. 1237.]

\* Illegible.

<sup>61</sup> Cf. Hodgson, III. i. 237.

<sup>62</sup> *Ibid.* p. 232.

<sup>63</sup> *Ibid.*

m. 2. VII. Exchequer, Q.R. Knights' Fees, 7.

In libro  
Norumber-  
landia  
scribitur  
per se.

<sup>64</sup>Galfridus filius Galfridi et Alexander de Hilton, reddunt compotum de eodem auxilio assiso et collecto in hoc comitatu [*i.e.*, de auxilio concesso domino Regi ad maritandum sororem suam Romanorum imperatori].

Willelmus de Vescy reddit compotum de xij feodis de veteri. In thesauro xxvij<sup>ll</sup> per predictos collectores.

Gilbertus de Hunfranuill' reddit compotum de ij feodis et dimidio de veteri. In thesauro c et xvij<sup>s</sup> iij<sup>d</sup> per predictos collectores.

Johannes filius Roberti reddit compotum de vj feodis de veteri. In thesauro ix<sup>ll</sup> xj<sup>s</sup> ij<sup>d</sup> per eosdem collectores.

Rogerus de Merlay reddit compotum de iijj feodis de veteri. In thesauro vij<sup>ll</sup> ix<sup>s</sup> vj<sup>d</sup> per eosdem.

Rogerus Bertram reddit compotum de vj marcis et dimidia. In thesauro viij<sup>ll</sup> v<sup>s</sup> iij<sup>d</sup>. Et debet vij<sup>s</sup>.

Hugo de Bolebec reddit compotum. In thesauro xij<sup>ll</sup> xvij<sup>d</sup> per eosdem collectores.

Johannes Vic(ecomes) reddit compotum de iij feodis. In thesauro iijj<sup>ll</sup>. Et Quietus est.

Hugo de Morewic' reddit compotum de j feodo. In thesauro ij marce. Et Quietus est.

Johannes de Baylol reddit compotum de xxiiij feodis et tribus partibus preter feoda atturnata Episcopo Dunolmensi. In thesauro ix<sup>ll</sup> xij<sup>s</sup> xj<sup>d</sup> per predictos collectores. Et debet xxiiij<sup>ll</sup> vij<sup>s</sup> j<sup>d</sup>.

Jordanus Heyrun reddit compotum de j feodo. In thesauro ij marce per eosdem collectores. Et Quietus est.

Robertus de Munchans reddit compotum iijj feodis de veteri. In thesauro ix<sup>ll</sup> xvij<sup>s</sup> v<sup>d</sup>.

Eustachius de la Val reddit compotum de ij feodis. In thesauro iijj marce per eosdem. Et Quietus est.

Adam de Tindale reddit compotum de j feodo. In thesauro ij marce per eosdem. Et Quietus est.

Robertus de Ros reddit compotum de ij feodis de veteri. In thesauro v marce per eosdem collectores.

Ricardus Bertram reddit compotum de ij feodis. In thesauro iijj<sup>ll</sup> et iij<sup>s</sup> per eosdem. Et Quietus est.

Radulfus de Gaugi reddit compotum de iij feodis. In thesauro iijj<sup>ll</sup> per eosdem. Et Quietus est.

Johannes de Kauz et Jacobus de Kauz reddunt compotum de iij feodis. In thesauro iijj<sup>ll</sup> per eosdem. Et Quietus est.

Rogerus filius Radulfi reddit compotum de j feodo. In thesauro ij marce per eosdem. Et Quietus est.

<sup>64</sup> Cf. Hodgson III. i. 240.

Alexander de Bradeford reddit compotum de j feodo. In thesauro ij marce per eosdem. Et Quietus est.

Radulfus super Teysam reddit compotum de duabus partibus j feodi. In thesauro xvij<sup>s</sup> viij<sup>d</sup> per eosdem. Et Quietus est.

Simon filius Thome de Diueleston' reddit compotum de tercia parte vnus feodi. In thesauro viij<sup>s</sup> ix<sup>d</sup>. Et debet ij<sup>d</sup> ob. in thesaurario liberati. Et Quietus est.

S{oluuntur}

Rogerus de Butemund' et participes tenentes feodum de Hephale. In thesauro ij marce per eosdem collectores.

probatur

Summa superioris thesauro allocati cxxj<sup>ii</sup> iiiij<sup>s</sup> vj<sup>d</sup>. Quod totum liberauerunt in thesaurario per iij tallias. Et Quieti sunt.

Iterato  
S{oluuntur}

VIII. Exchequer, Q.R. Knights' Fees.  $\frac{2}{16}$ .

Botulus de auxilio prelatorum Regi promisso contra transfretationem suam in Waschoniam anno regni sui xxvj<sup>to</sup>.

[A.D. 1241-42]  
m. 3.

\* \* \* \* \*

In libro.  
Norhumber-  
landia  
E'.

Abbas de Neumuster (reddit compotum) de ij palfredia.



## X.—COUPLAND CASTLE.

BY THE REV. MATTHEW CULLEY OF COUPLAND.

[Read on the 28th day of October, 1903.]

When Sir Robert Bowes and Sir Ralph Ellerker drew up their report of the Frontier Defences of the East and Middle Marches at the end of the year 1541, the township of Coupland had in it 'nether fortresse nor barmekyne.'<sup>1</sup> Leland, perhaps a year or two earlier, speaks of Coupland village, 'where.' in his quaint language, he tells us, 'the Water brekethe into Armes makyng Islets'<sup>2</sup>; (which is still true of the river Glen at Coupland); but he names no fortress. The famous list of castles and towers in Northumberland in 1415 is equally silent as to any place of defence at Coupland. This seems strange, considering the position of the manor, almost at the entrance of one of the principal passes, through the Cheviots, into Scotland; at the same time an explanation may be found in the fact, that the greater manor of Akeld, only two miles off, and which frequently belonged to the same owner, had in it in 1541 'a lytle fortelett or bastel house,'<sup>3</sup> while the neighbouring tower of Lanton existed already in 1415.<sup>4</sup> There is of course the possibility of a tower or strong manor house having overlooked the river Glen at Coupland at an earlier period, and of its having fallen into ruin previous to 1415, but it must be borne in mind that Northumbrian castles were not particularly numerous before the fourteenth century, and that the great bulk of our border towers were not built until after the battle of Neville's Cross, which was fought in 1346.<sup>5</sup> It will be remembered that the Northumbrians and Lowland Scots were practically the same race, a mixed population of Angle and other Teutonic peoples, with perhaps a larger admixture—especially in the upland districts—of the aboriginal Celtic blood than is generally supposed. For a long time it was doubtful whether the present county of Northumberland would

<sup>1</sup> Bates, 'The Border Holds of Northumberland,' *Arch. Ael.*, xiv., p. 34.

<sup>2</sup> *Ibid.*, p. 28.

<sup>3</sup> Still in a good state of preservation.

<sup>4</sup> Only a fragment now remains.

<sup>5</sup> See 'Border Holds of Northumberland,' p. 11.



COUPLAND CASTLE.

[From a Photograph by Mr. W. Green of Berwick.]



eventually be attached to England or to Scotland ; it was not really until Henry II. had taken possession of the earldom of Northumberland that the northern boundary line between the two kingdoms began to assume a permanent shape, and that Northumberland was finally destined to become an English and not a Scotch county. The actual incorporation of Northumberland in the realm of England did not indeed take place until considerably later, and even during the first quarter of the thirteenth century the Northumbrian barons did homage, perhaps not altogether unwillingly, to Alexander of Scotland, while Scottish influence and rule, or possibly we should say misrule, extended over the franchise of Tynedale until near the century's end. The memory of Northumbria's glories and independence had not died out by any means amongst the inhabitants of the later earldom, poorly representative as that earldom was of the ancient kingdom, and when that independence, so far as it still existed, had by force of circumstances to be relinquished, it is not unlikely that the Northumbrian people would have taken as kindly to a Scottish as to an English nationality.<sup>6</sup> This is hardly matter for wonder, when one reflects that even to-day, Northumberland, for some miles inland from the border, is to a great extent more Scottish than English in religion and sympathies, as well as in blood.

Be these things as they may, it is, I think, certain that the state of the frontier defence against Scotland presented no abnormal features before the fourteenth century, and it was not until after the middle of that century that the building of border towers became popular.

The building of the castle or great tower of Coupland was doubtless one of the results of the report on the frontier defences sent up to Elizabeth's Council by the Border Commissioners in 1584. It had been particularly recommended by the Commissioners that there should be some additional strongholds along the middle marches between the river Tweed and Harbottle.<sup>7</sup> The owner of Coupland may have been urged to build, or a sense of his own insecurity in the

<sup>6</sup> It would perhaps not be impossible to show that an independent Northumbrian nationality was preserved under the great franchise of the Palatinate of Durham down to the sixteenth century. The question is an interesting one, though this is not the place to discuss it.

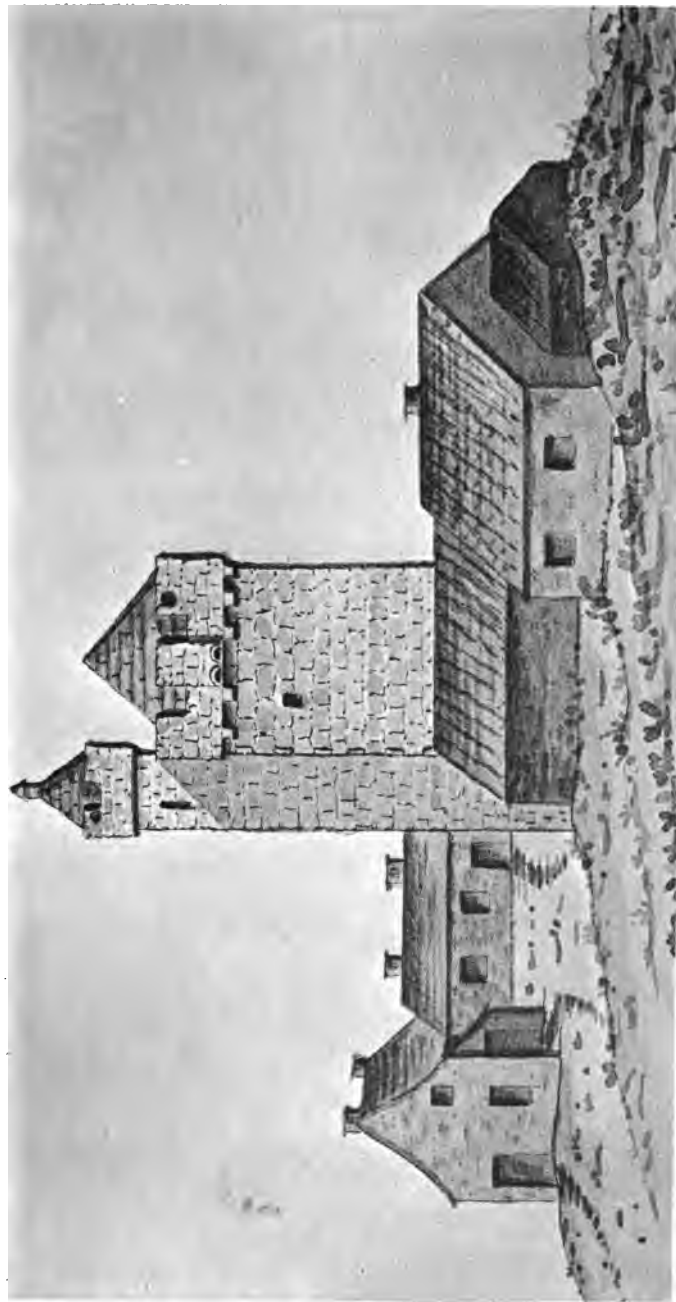
<sup>7</sup> See 'Border Holds,' p. 74.

case of a raid may have led him to do so. Anyhow, the castle was probably commenced very soon after this period, and the great strength of the building shows plainly that it was intended for purposes of defence and that little or no hope was entertained, at the time, of any immediate friendship between the two sides of the border. This puts the date of building, though later than 1584, evidently prior to the union of the two crowns, while the fact of so great and strong a tower—only a little less than some of the greater keeps—being reared thus late in Elizabeth's reign makes Coupland one of the most interesting of our border castles, showing as it does the character and state of the borderland at that period.

The original castle consists of two towers, conjoined, containing eleven rooms, including the large stone vault in the basement (now divided into two kitchens) and a remarkable stone staircase of 73 steps. What would formerly be known as the 'great chamber,' but now called the 'haunted room,' on the first floor, must have been a noble apartment before it was divided into two; within it, running along the south wall, is a stone chimney-piece 10 feet 10 inches in length and bearing the date 1619, carved in the centre, the date possibly of the chimney-piece itself, or of some other event connected with the castle or its owners.<sup>8</sup> The larger of the two towers measures 47 feet by 29 feet, the walls of the basement are 5 feet 6 inches thick, while on the first floor they show a thickness of 5 feet. The original entrance was through a round-headed doorway in the west wall of the lesser tower opposite the foot of the stone staircase; this doorway is still in use, though no longer communicating with the open air: the great iron hinges of the original door—very large and massive—yet remain. This, the only original entrance, was overlooked by a window, in the thick south wall of the greater tower; this window was of great strength, with much iron work about it, and could have been efficiently made use of as a means of guarding or protecting the entrance below.<sup>9</sup> This window was blocked up when the castle was restored in the early part of the last century, but the window recess,

<sup>8</sup> The writer has seen reason, as shown above, to retract the opinion expressed by him some eighteen years ago in an article printed by the Berwickshire Naturalists' Club, that 1619 was the date of the building of the Castle.

<sup>9</sup> *Ex informatione* my late father, who had *his* information from the previous generation.



COUPLAND CASTLE,



with stone seats on either side, remains ; it opens from the 'haunted-room' and is now used as a strong safe, shut off by a heavy iron door. The walls were pierced here and there by narrow loopholes, all of which have been filled up, and there would seem to have been one or two other small windows, lighting the upper floors at a considerable height above the ground, which may possibly have been enlarged into some of the existing casements. The battlements of both towers have the appearance of being, at least to a great extent, original, though the embrasures have been renewed, and the facing of the east battlement is apparently of the date of the restoration. The circular turret for the flagstaff is of the same date, making it impossible to say with any certainty how the staircase originally terminated and led on to the battlements.<sup>10</sup> The present egress is by two doors, that opening on to the principal, though lower, tower looking much like an old doorway ; while the battlement of the higher tower is gained by a door through the later flag turret.

The old stone spouts (or gargoyles) for draining the battlements are generally well preserved and are good specimens of their kind, though in some cases much worn by age and friction, and in one or two instances they have been replaced by lead spouts.<sup>11</sup>

The view from the higher tower is very fine. To the south and west stretches a striking panorama of the Cheviots extending right over to the Scottish side. To the east the eye takes in the low lying and fertile plains towards the sea, though the sea itself is hid by the moors of Weetwood and Wrangham, awakening thoughts of Cuthbert and his vision of Aidan, and by the romantic Kyloe range beyond. Northwards the horizon is bounded by the high fell lands beyond Ford, whose old grey church and massive keep, overlooking Flodden, are dimly visible amongst the trees. It is a typical border scene. From every side an approaching enemy might easily have been descried.

The more modern additions to the castle, built in the seventeenth century and the early part of last century, include all the present reception rooms, and a considerable number of bedrooms, servants' quarters, etc.

<sup>10</sup> Plate IX. shows a 'pepper-castor' shaped roof or cover, under which the stair may have terminated. This had probably fallen in by 1800 or thereabouts when the sketch (p. 179) was made.

<sup>11</sup> The late Mr. C. J. Bates was much interested in these old stone spouts.



A living scholar has described Kirknewton as 'the most interesting place in England.' Whether or not one is prepared to endorse this statement to the full, it is certainly true that part of the district included in the parish of Kirknewton stands out with a history and individuality of its own, in the very fountain-head of Northumbrian story; for to Adgefrin, now Yeavering,<sup>12</sup> opposite Coupland—across the Glen—and a mile or so from Kirknewton, came Paulinus, a Benedictine monk from Rome, preaching the Christian faith under the protection of the Northumbrian king Edwin, in the sixth century. St. Gregory's hill and the dedication of Kirknewton church to pope Gregory-the-Great (who sent Paulinus) keeps alive the memory of this early mission. Coupland lies in this interesting parish, and in the river Glen, which washes the bank on which the castle stands, the baptismal waters certainly flowed under the hand of Paulinus.

From the early part of the twelfth century Coupland was one of the manors of the barony of Wooler, which had been conferred on the de Muschamp family by Henry I.,<sup>13</sup> and was held at that early period, or shortly after, by the de Akelds, who also held, of the Muschamp barony, the neighbouring manor of Akeld, from which they took their name. In the following century William de Akeld held Akeld, Coupland, etc., of Robert de Muschamp,<sup>14</sup> *de veteri feoffamento*, which seems to point to his family having been enfeoffed by the barons of Wooler about the time of the original grant under Henry I.<sup>15</sup> Thomas de Akeld was a juror on the death of Robert de Manners in 1250. Six years later he occurs again as a juror in an inquisition at Wooler, on the death of Isabella de Ford; while shortly after, and in the same reign, that of Henry III., Robert de Akeld, and William his son, witnessed a charter of Robert de Muschamp, granting a right of pasture in the territory of Heathpool to the monks of Melrose.<sup>16</sup> William de Akeld, probably the son of Robert, also witnessed a grant of land at Bowsden, by Hugh, son of John de Haggardeson, to the Convent of Holy Island.<sup>17</sup> These scattered notices, which might be

<sup>12</sup> The property of Mr. Thomas K. Culley.

<sup>13</sup> Bates, *History of Northumberland*, p. 116.

<sup>14</sup> It is not correct to speak of Coupland as a 'seat of the Muschamps.' It is practically certain they never lived there.

<sup>15</sup> *Testa de Nevill*.

<sup>16</sup> *Liber de Melrose*.

<sup>17</sup> *Holy Island Charters*.—Raine.

supplemented, show these early lords of Coupland to have been fairly active members of society in their day. It is not improbable that they actually resided at Akeld rather than at Coupland. The ancient chapel of Akeld, of which and of its priests there are stray notices about this time, may not unlikely have been their foundation, and may be taken to denote a little community of tenants and retainers gathered round the house of the manorial lord. It may be mentioned, in passing, that part of the old burial ground of Akeld is still known as such, and traces of graves are said to have been visible a hundred years ago ; while a neighbouring field, in which fragments of worked marble have been ploughed up in recent times,<sup>18</sup> and which is called the 'Chapel Field,' plainly points to the traditional site of Akeld chapel. Another field on Akeld, called 'the Lady's Close' and a well above the grave-yard, in Akeld dene, known as 'the Lady's Well,' may indicate the dedication of the chapel to the Blessed Virgin.

To restrict oneself, however, to the subject of this paper, which is the manor of Coupland, not that of Akeld, we should point out that another family bearing local name held land at Coupland and elsewhere in the neighbourhood contemporaneously with the later de Akelds. These were the de Couplands.<sup>19</sup> Their connexion with Coupland probably went back a long way, and they may possibly have grown in importance as the de Akelds declined or disappeared, though it seems doubtful if they ever owned more than certain parcels of land within the manor. Stephen de Coupland held land at Heathpool *de novo feoffamento* at the time of the *Testa de Nevill*. In the Inq. 34 Henry III. (mentioned above) on the death of Robert de Manners, Samson de Coupland was a juror along with Thomas de Akeld ; he also witnessed Robert de Muschamp's grant of land to Melrose. In an Inq : 18 April, 1306, at Wooler, on Nicholas de Graham, Simon de Coupland appears as a juror, and about the same time a David de Coupland occurs. In 1340 a question arose as to the legitimacy of Joanna, wife of Walter Mautalent, who claimed seisin of the lands, both in Coupland and Howtell, of Simon de Coupland, as his daughter and heir.<sup>20</sup> The lands at Howtell consisted of one messuage 'cum per-

<sup>18</sup> The writer secured some of these fragments some years ago.

<sup>19</sup> It seems uncertain how sir John Coupland, of Neville's Cross fame, was related to this family, though we may safely assume that he was akin to them.

<sup>20</sup> *Reg. Pal. Dunelm*, edited by sir Thomas Duffus Hardy, iii. pp. 274-5.

tinentibus' and those at Coupland are described as two messuages, 48 acres, etc. From these lands at both places Joanna was forcibly ejected, in the case of Howtell by Roger de Hollthale [Howtell], and at Coupland by John, son of John de Coupland, on the ground that she was a bastard, and consequently could not claim the estate 'per successionem hereditariam.' John de Coupland himself claimed to succeed as uncle and blood relation of Simon, who was said to have left no direct heir. Joanna Mautalent brought an action in the matter, before the king's justices, against John de Coupland, David Grey and Thomas Todde (who were also doubtless concerned in the ejection), but the question of Joanna's legitimacy coming under the jurisdiction of the Church courts, a *mandamus* was sent in due form to Richard, prince-bishop of Durham, who accordingly issued the necessary *confirmatio*, and the result of the inquiry was that Joanna was found to be a bastard, and a certificate to that effect issued by the bishop to the king's justices, dated 'in Castro nostro Dunelmi die ii Augusti A.D. 1340 et consecrationis nostrae septimae.'<sup>21</sup> In consequence of this decision we may presume that John de Coupland was confirmed as heir to Simon.

By the reign of Henry IV. Coupland had become for the most part the property of the Grays of Heton, inherited possibly from the de Hetons, to whom it would seem the neighbouring manor of Akeld had been granted two years after Hallidon Hill, in consequence of the forfeiture of Adam Prendergust. The manorial rights continued to descend in the Gray family for many generations, though, as their residence was at Heton and later at Chillingham, their mere possession of Coupland presents no features of particular interest. The state of the borderland at this time was truly terrible. Glendale was being constantly devastated and laid waste; the tenantry of Coupland must have carried their lives in their hands, and anything approaching to prosperity, or the regular cultivation of the soil must have been to a large extent in abeyance. A vivid picture of the state of things, at this period, is presented to us by the licence of cardinal Langley, bishop of Durham, granted *viva voce* at Auckland<sup>22</sup> to Thomas Whityngeham, vicar of Kirknewton, on the 18th of April, 1436, to celebrate masses and other divine offices in any secure and decent place

<sup>21</sup> *Reg. Pal. Dunelm.* pp. 339-40.

<sup>22</sup> *Ibid.*

whatsoever, and rightly arranged for divine worship, anywhere within his parish of Newton, and outside his church, so long as the hostility of the Scots then existing there, should last ; at the same time taking care to provide for the baptism of children, and the extreme unction of the dying and their burial, as far as he securely could.

In the sixteenth century the Forsters of Adderston, the Halls of Otterburn, the Herons of Bockenfield, and a family named Wallis, apparently related, though it is difficult to say in what degree, to the Wallises of Knaresdale, owned various parcels of land at Coupland. The Wallises were certainly settled in Glendale in the first years of the sixteenth century, if not in the century before, for Roland Wallis is styled of Newingefeld in Glendale in 1509, and James Wallis was living at Akeld at the same time. This family gradually acquired the greater part of Coupland. In 1563 sir John Forster of Bamburgh,<sup>23</sup> the lord warden of the middle marches, sold land in Coupland to Gilbert Wallis of Akeld, whose daughter became, apparently, the first wife of Cuthbert Mitford of Mitford; and in 1567 Thomas Forster of Adderston,<sup>24</sup> who had purchased the previous year from John Heron of Bockenfield and Humphrey Heron of Eshott, sold all his messuage, land tenement, etc., in Coupland to James Wallis of Coupland. The speculation in land at this period is worthy of notice. The Wallises, those at least of the family settled in Glendale, must have been very substantial and successful men, and bit by bit bought up much of the land in their neighbourhood ; they acquired an estate at Humbleton as well as at Akeld and Coupland. The name is very old in the south-west of the county ; the rev. John Hodgson tracing the family back more or less to the thirteenth century. The Coupland and Knaresdale lines seem to have merged eventually into one, at least both places were owned by the same individual by the time of Charles II.

It is probable that the tower of Coupland was built by the Wallises at this period—the latter part of Elizabeth's reign—for the protection of their newly-acquired estate. We have pointed out that the work was most likely the result of the report of the Border Commission on defence in 1584, and this puts the date of building subsequent to the purchases by the Wallis family. It is of course

<sup>23</sup> Coupland Title Deeds.

<sup>24</sup> *Ibid.*

just possible that the work may have been begun by the Grays, but for various reasons this does not seem likely. On either side of the date, 1619, on the chimney-piece of the 'great chamber,' or 'haunted room,' are the initials 'G.W., M.W.'—those probably of Gilbert Wallis and his wife. This date, some years posterior to the union of the two crowns, and too late for the building of a tower of such strength, designed, on the face of it, for purposes of defence, is perhaps that of the chimney-piece itself or of some other work of adornment or completion.

In 1642,<sup>25</sup> James Wallis of Coupland executed a deed with Henry Orde of Weetwood, Henry Wallis of Knaresdale, and Richard Wallis of Humbleton, settling Coupland, and his estate at Humbleton, on his own issue in tail-male, with remainder to the issue of Richard Wallis aforesaid, George Wallis of Learmouth, and James Wallis of Wooler; while in 1665,<sup>26</sup> James Wallis purchased 'Coupland Tower' and the property at Humbleton from his kinsman Richard Wallis, thus, in his own person, uniting the hitherto divided estates of the family in Glendale.

James Wallis of Coupland was one of the seven Roman Catholic gentlemen placed on the commission of the peace for Northumberland in 1687; he charged the Coupland estate with an annuity of £40 for his daughter Mary, the wife of Vaughan Phillips,<sup>27</sup> to whose guardianship the young heir of Coupland and Knaresdale, James Wallis, was committed. The whole estate eventually devolved upon Ralph Wallis who sold Coupland in 1713<sup>28</sup> to his wife's kinsfolk, the Ogles of Kirkley; this was followed by the eventual dispersion of all the other estates of the family.<sup>29</sup>

Nothing of special interest marked the ninety-three years' possession of Coupland castle by the Ogle family; they were almost, if not quite, non-resident owners. By the beginning of the following century the great deserted tower was showing signs of decay;

<sup>25</sup> Title Deeds of Coupland.

<sup>26</sup> *Ibid.*

<sup>27</sup> Estcourt and Payne, '*The English Catholic non-jurors of 1715.*'

<sup>28</sup> Title Deeds of Coupland.

<sup>29</sup> A branch of the Wallis family remained in Glendale as tenants of a farm at Humbleton, which, on the dispersion of the Wallis lands, passed about 1715 into the possession of a member of the Bates family. Thomas Wallis, and, after him, John and James Wallis, paid rent for this farm, certainly as late as 1728.—Old receipt book among the muniments at Coupland.

apparently only its strength and solid masonry had prevented its becoming a ruin, for at the time of the last conveyance in 1806 the castle was little more than an empty shell, much of the woodwork having been at some time or other destroyed by fire.<sup>30</sup>

In 1806, Nathaniel Ogle conveyed the castle and estate of Coupland to Thomas Bates of Brunton, a representative of a cadet line of the Bateses of Aydon White House.<sup>31</sup> In 1788 there had taken place the marriage of Elizabeth Bates, sister of the purchaser of Coupland and his heir-presumptive, with Matthew Culley of Denton, who that very year (1788) had succeeded his elder brother, Robert Culley (who had died unmarried), in the family estate of Denton, in the county of Durham. A few years later, in 1795, Matthew Culley, who had more or less resided in Glendale and on Tweedside since 1767, added to the already valuable property of his family by purchasing the large estate and manor of Akeld, adjoining Coupland;<sup>32</sup> this was quickly followed by the purchase of Humbleton, while his alliance with the Bateses eventually brought Coupland castle also to his family, thus re-uniting these three manors in one ownership, as in the twelfth and thirteenth centuries. The Culleys were of French origin though they were certainly settled, to some extent at least, in England by the end of the twelfth century. There has been little change in the spelling of the name in the course of centuries, for example, Cuilli, Cnylly, Culy, Cullye, etc.; the *i* or *y* before *l* would naturally fall out in an English mouth. As early as 1308,<sup>33</sup> in a licence to Matilda, widow of Walter de Culy (to grant in fee her manor of Sherensleye, county Warwick, held *in capite* of the king), the name is practically in its present form; while as late as the latter part of Edward the third's reign, another Walter, son perhaps of Walter and Matilda, witnessing a charter of Geva, daughter of Hugh, earl of Chester, spells his name Cuilli.<sup>34</sup> They were essentially a family of soldiers and their attachment to the early house of Lancaster in the thirteenth and fourteenth centuries was quite remarkable, and would be instructive could their devotion to this line of Plantagenet be

<sup>30</sup> *Ex informatione* my late father, who had his information from the older generation.

<sup>31</sup> Title Deeds of Coupland.

<sup>32</sup> *Ibid.*

<sup>33</sup> *Cal. Pat. Rolls*, Edward II.

<sup>34</sup> Dugale's *Monasticon*.

construed into a desire for a more constitutional form of government than that adopted by Edward the second. There seem to be strong reasons for believing that the first settlement of this family in the north came about through their personal attendance on Thomas of Lancaster on his northern expeditions, when, it will be remembered, he was really strengthening his cause against his royal cousin Edward. Hugh de Cuilly was constable of Kenilworth castle under the earl; was with him at Boroughbridge in 1321, and died a prisoner in Pontefract castle, where he was confined along with his unfortunate leader.<sup>35</sup> His widow, Joan de Cuilly, was restored to possession of her lands by the king at Alnwick on the 9th August, 1322.<sup>36</sup> On the 15th of December, 1330, a pardon was granted, at Westminster, with assent of parliament, to Roger de Cuyly<sup>37</sup> of a recognizance in £100. wherein he became bound by order of council on submitting himself to the king's will after the rebellion at Bedford. Two years later, Roger witnesses an *inspecimus* and confirmation of indenture (in French) at Leicester, of Henry, earl of Lancaster and Leicester, steward of England<sup>38</sup>; thus showing continued attachment to this line of the royal house. These and other notices of the family at this period in the Patent and Close Rolls and elsewhere give us interesting glimpses of the chequered lives, virtues, and vices of these Franco-English followers of our early kings.

A member of this military race, Phillip de Cuyly, acquired one fourth part of the manor of Wynyard, near Stockton-on-Tees, in the palatinate of Durham, in the early years of the fourteenth century<sup>39</sup>; not improbably through marriage with one of the several daughters and co-heirs of sir Hugh Capel of Wynyard. The sieur Phillip gave this fourth of Wynyard before 1316 to Roger and Alice de Fulthorpe; but a little later in the same century several members of the Culley family had acquired lands within the neighbouring manor of Stockton, where they continued to hold *in capite* of the bishop, right down to the time of James I., by knight's service and the very interesting feudal tenure of presenting two hunting hounds to St. Cuthbert at the annual muster at Durham, on the fourth of September, the feast of St. Cuthbert's translation.<sup>40</sup> This recalls the

<sup>35</sup> *Close Rolls*, Edward II.

<sup>37</sup> *Close Rolls*, Edward III.

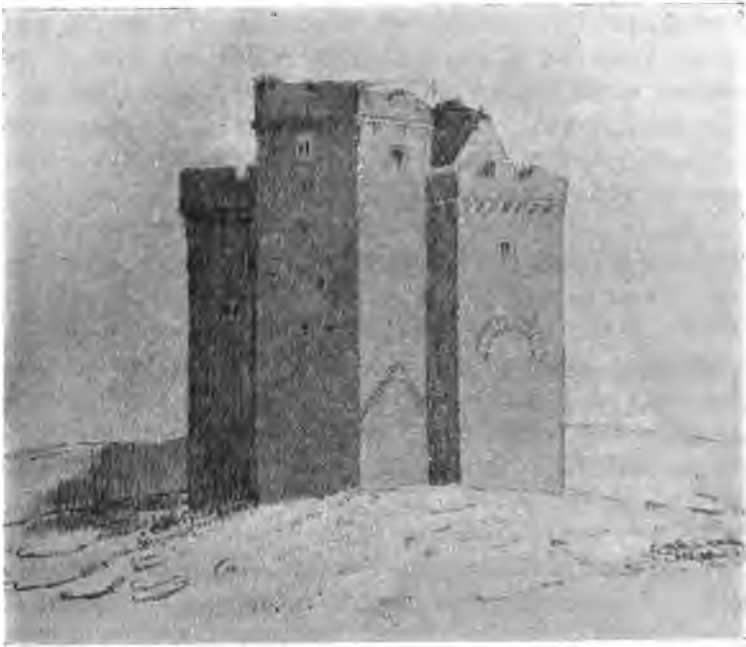
<sup>39</sup> Surtees, *Durham*, iii.

<sup>36</sup> *Ibid.*

<sup>38</sup> *Ibid.*

<sup>40</sup> *Ibid.*

privileges and truly regal franchise of the palatinate, which conferred on the bishop of Durham the status of an independent sovereign, whose vassals held of him in chief, and owed no direct allegiance to the king of England. In this we trace the last remnant of a Northumbrian monarchy. Late in the seventeenth century, and in the early years of the eighteenth, the main stem of these Culleys of the palatinate became divided in the persons of two brothers, John and Matthew,



COUPLAND CASTLE ABOUT 1800.

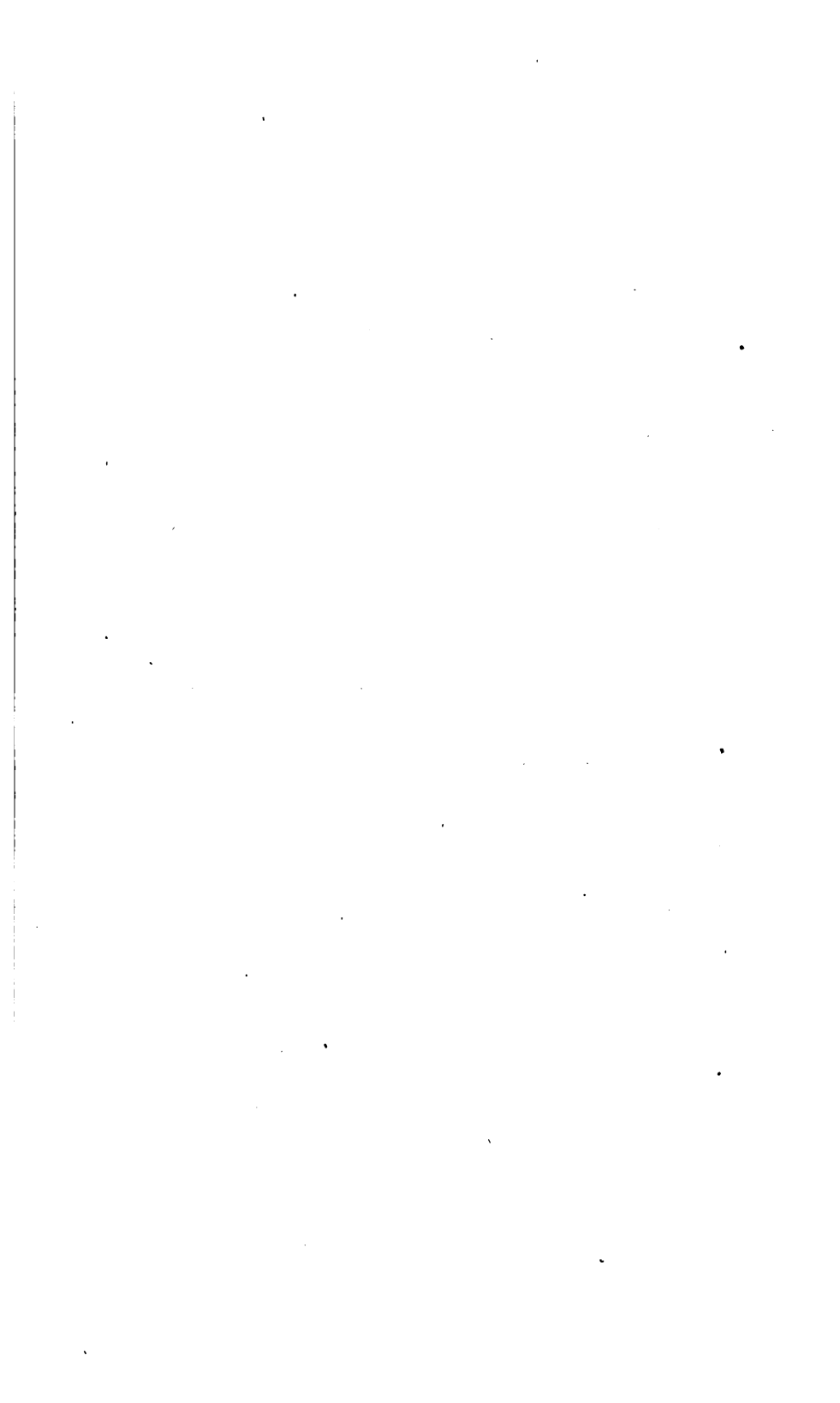
into two lines, those of Beaumont hill and Denton. The elder line failed in male heirs, and the heiress carried the estate of Beaumont hill to the Harrisons, who, as Culley Harrisons of Newtown, county York, in their turn ended in two co-heiresses, the younger of whom, Anne, married in 1813 to the hon. Henry Butler (younger son of the eleventh viscount Mountgarret), whose grandson Henry Edmund, fourteenth viscount Mountgarret, now represents maternally this elder line of Culley.



The Denton line, descended from the second brother, has thrown out a younger branch—that of Fowberry—which has twice within the last hundred years terminated in female heirs taking the name of Culley; but the Coupland line has an unbroken male descent.

Plate IX. (facing p. 170), is a reproduction of a drawing of Coupland castle before its restoration, from the valuable collection of the late sir David Smith. This drawing, however, seems not to be quite accurate; the writer has therefore given another representation of the castle, reproduced on page 179, from a pencil sketch in an old album at Coupland which had belonged to a member of his family eighty or ninety years ago. This is, on the whole, a good picture of Coupland, as it must have been about the year 1800, and as it was when sir Walter Scott wrote of it from Langley Ford, near Wooler, in 1791,<sup>41</sup> ‘Behold a letter from the mountains. . . . We are amidst places renowned by the feats of former days; each hill is crowned by a tower or camp or cairn, and in no situation can you be near more fields of battle: Flodden, Otterburn, Chevy Chase, Ford castle, Chillingham castle, Coupland castle, and many another scene of blood are within the compass of a forenoon’s ride.’ The architectural details of this sketch, with the exception of a fanciful multiplication of loopholes and windows, is believed to be very fairly accurate. The illustration of the castle as it is to-day (plate VIII.), showing the old restored towers, and the additions of the early part of last century, is from a photograph taken by Mr. William Green of Berwick; the view is that of the east front. The south front, overlooking the glen and the hills is not shown, nor is the embattled wall, enclosing the court yard and terminating in a small tower, to the north.

<sup>41</sup> Lockhart, *Life of Sir Walter Scott*, I. 182-3.





PREPARING THE BONFIRE, WHALTON.

From a Photograph by Sir J. Benjamin Stone, M.P.

## XI.—THE MIDSUMMER BONFIRE AT WHALTON.

BY THE REV. J. WALKER, Hon. Canon of Newcastle  
and Rector of Whalton.

[Read on the 25th November, 1903.]

In the quiet village of Whalton there survives a custom the origin of which is unknown by those who perpetuate it year by year, and is perhaps only guessed at by the antiquary and the student. Every year on the fourth of July as the sun goes down a huge bonfire is made and lighted on the village green, and this is done not only regularly as to time but with certain formalities as to the manner of it. We cannot aver that there is any organization for carrying out the ceremony, yet as the day approaches the question of the fire is mooted and discussed as well by the elders of the community as the more youthful. There is a general concensus that the custom must be kept up as heretofore, and thereupon some of the male adults begin to consider how and where the necessary faggots can be collected, and the more experienced, I mean those who have lived longest in the village and most often taken part in carrying on the custom assume the position of leaders. Fallen trees will be noted, the thinnings of some plantation, or the remains of a demolished fence are bespoken, or often enough permission is asked and readily given to cut down the whin bushes on some 'outby' common or barren land. The young men with the chosen leader will give a few evenings to the collection and preparation of the faggots. Then on the evening of the fourth of July with the same ceremony year after year, the faggots are brought into the village and deposited upon precisely the same part of the village green. A long cart is borrowed from some farmer, long ropes are procured, and all the young men and many boys of the village proceed with the cart to the place or places where the faggots have been collected and load the cart. Then one or two of the strongest take the shafts, the rest are yoked to the cart by the long ropes, and with much noise and shouting, with the blowing of a horn by one seated on the top of the load, it is brought into the village. The scene as a huge load of faggots is run down the village is an exciting one, and on one occasion in my memory

there was a narrow escape from a serious accident. You must imagine a cart with a huge pile of faggots, a youth seated on the top blowing a horn, one or two men holding the shafts, twenty or thirty men and boys dragging by means of a rope the great load and running down the village shouting and laughing, and in their excitement almost beyond the control of the leader in the shafts. No horse is ever used, and mostly two of these immense loads of faggots, as high as a load of straw, are used in the building up of the bonfire. The pile is carefully constructed with the expenditure of considerable energy and some skill. It is always constructed on the same site, hardly varying a yard from year to year. And the place for the fire is not the highest or most commanding station in the village. Then with the building up of the pile of branches and faggots a remarkable scene takes place, the whole village grows interested, old men and women, young men and maidens, and the children, begin to gather in groups and watch the proceedings impatient till, as the twilight deepens and the pile of faggots has been carefully prepared and examined, the word is given to 'light her.' The feminine as usual being the formula used. Then the children joining hands will form a moving circle round the burning pile. This is not as much observed as it was some twenty-five years ago. Still you may see the children racing round the fire with rather more formality than might be seen perhaps at an ordinary bonfire. Meanwhile the groups of people gather nearer the fire, and presently as the fire begins to burn and the flame mounts higher till it illuminates the whole village, a fiddle or some other instrument is heard and the young people begin to dance in the near neighbourhood of the fire. I have never waited until the fire has burnt down to the ground, but I have heard that then it was not unknown for some to leap over the fire. At present the only usual formalities are the bringing of the faggots, the building of the pile on the traditionary site, the lighting as the twilight deepens, the dancing either round or in the neighbourhood of the fire. There is always, too, a quantity of 'sweets' and 'bullets' scattered and scrambled for by the children.

And I would like to mention how regularly my predecessor, the Rev. J. Elphinstone Elliot Bates, with Mrs. Bates, used to proceed arm in arm down the village to see the fire lighted and to exchange



BRINGING IN FAGGOTS, ETC., FOR THE BONFIRE, WHALTON.  
From a Photograph by Sir J. Benjamin Stone, M.P.



greetings with the several groups of villagers, adding a charming feature to the picturesqueness of the scene.

It is still a quaint scene and interesting to witness and take part in.

Old men over 80 years of age have told me that they never knew the fire omitted or the custom fail. There is a tradition that twice the fire was postponed to the next evening because of the 'great rain' but it was never omitted—and these old men, one of whom 80 years of age and upwards had never slept out of the village but twice in his life, asserted that they had received the same story from their elders—on the other hand, oddly enough, I have never come across a written record or printed account of the custom. There was some opposition to it within my own memory but the fire was lighted all the same. The old thatched cottages have disappeared, more modern dwellings have been built, migration and immigration take place, but whatever the changes this custom survives.

One factor in its unbroken continuance is, I think, found in the enduring affection of the people for the village. They leave it only of necessity, they return to it again whenever it is possible, and a few years ago there were I think more old men and women whose lives have been lived in the village than in any similar community.

Another factor is doubtless the comparative isolation of the village, it lies some distance from the old coach road and is still but little affected by the railway, the nearest station being two miles distant, and we are not likely to be troubled yet with either trams or light railways.

This year in consequence of a conversation with Sir Benjamin Stone, kt., he did us the honour of coming down to witness the fire. The 4th of July, Old Midsummer Day, occurred on Saturday, and at my request those who are usually most active in carrying out the proceedings gave Sir Benjamin a daylight rehearsal, and he took quite a number of groups. It is but fair to say that those groups are just such as could be witnessed in the evening any year. Beyond the mere pause of the procession shall I call it, and a little arranging to bring the groups within the focus of the camera, and perhaps the addition of one figure in the group you have a picture of the annual event just as it happens year after year. Sir Benjamin on this occasion set the fire alight, and one of the photographs is taken



just as it is getting hold of the pile. I have not got the group of children as they run round the fire, but a whole series of these photographs was sent to me and I have had them framed and hung in the village reading room. Sir Benjamin also gave me a sufficient number of copies to give one to each of the more active participators in the carrying out of the proceedings.

I know of no other village or place where the custom is observed now, but the late Mr. Thomas Arkle of Highlaws, told me he had known those who had witnessed the observance at Elsdon and there is some tradition of its being observed years ago at Belsay.

One or two observations may be permitted in conclusion. And first it seemed undesirable to discuss the possible origin of the custom, that it is very ancient there can be no doubt. Traditionary evidence is very strong. It is now practised without any superstitious feeling, although it has been reported to me that there has in times past been a stealthy appropriation of the ashes, and while it is extremely doubtful and indeed improbable that the fire has anything to do with the Baal or Molech of the Old Testament; yet it may be a witness of the extent to which the use of fire for purification prevailed either among British or Anglian races and perhaps in both.

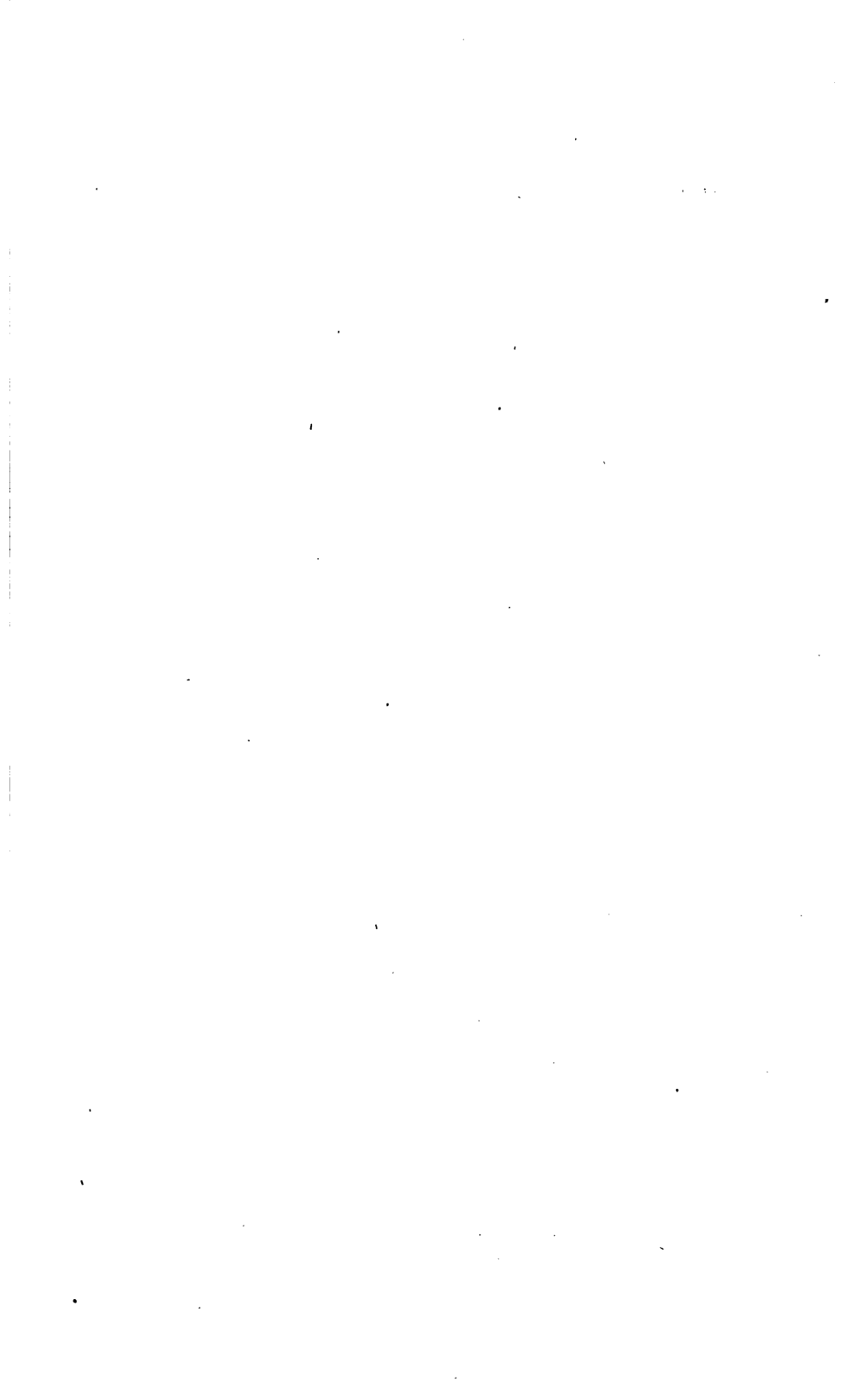
#### NOTE.

*Beltane* adopted in Lowland Scotch from Gaelic (*bralltaina*); Irish *bralltaine*, the Celtic name of the 1st of May; older forms *beltene* (in a text), *belltaine*, *beltine* in Cormac's Glossary (9th to 12th cent.). The first is probably the earliest quotable form of the word of which the original meaning seems to have been unknown even to the Glossarist since he makes a desperate guess at it by transposing *beltine* or *biltene* into *tenebil*, and explaining *bil* as 'Bil from Bial, i.e., an idol god, evidently meaning the Bal or Baal of the O.T., so that *beltine* became fire of Bel? or Baal.' Dr. Whitley Stokes has shown that the latter part of the word is not 'teine' fire, since this is a *t* stem (old text *tened*) while *Beltene* is a fem. *ya* stem. Whether it can be parallel derivative of the same root or whether as is more likely the notion that '*taine*' was = '*teine*' fire is due thereby to popular etymology cannot be determined. The ancient Gauls kindled bonfires not only on *Beltane* but also on *Lammas* and *Hallowmas* (the rubbish about *Baal*, *Bel*, *Belas*, imported into the word from the O.T. and classical antiquity, is outside the scope of scientific etymology).

1.—The first day of May (reckoned since 1752 according to O. S.), old May day of Church Feast, invention of the Cross, May 3. Whit Sunday May 15.

2.—Name of an ancient Celtic anniversary celebration on May day.

—*The New English Dictionary, sub voc.*





THE LATE PROFESSOR THEODOR MOMMSEN.

AN HONORARY MEMBER OF THE SOCIETY.

## XII.—OBITUARY NOTICES.

1.—THEODOR MOMMSEN, HONORARY MEMBER.

BY F. HAVERFIELD, F.S.A.

[Read on the 25th November, 1903.]

Our age has lost its greatest scholar, full of years. Born in 1817, Theodor Mommsen spanned the nineteenth century with his gigantic contributions to learning. His life was simple but significant. A German of Schleswig-Holstein, educated till his twenty-seventh year within the duchy, the struggle of Dane and German gave a reality to his national feeling which lasted throughout his career. A student of law at Kiel university, a friend of Otto Jahn—then concerned with the rising study of inscriptions—he touched thus early the two subjects in which later his learning was most triumphant. Three years of student travel in Italy (1844-7) emphasized for him the value of inscriptions, and brought him face to face with Borghesi, the projector himself of a *Corpus Inscriptionum* and greatest of living epigraphists. He began to write abundantly, and was already known as a scholar of extraordinary powers and activity. In 1848 he became professor of Roman law at Leipsic, but the February revolution gave him other work. He helped the Holsteiners against the Danes; he took the Liberal side in internal German struggles, and as a result in 1850 he lost his professorship. He thus learnt the real character of a revolutionary epoch. Wandering about, first at Zürich university, then at Breslau, he nevertheless continued his work. In 1852 came his first great epigraphic book, the folio containing the ‘Inscriptions of the Kingdom of Naples.’ In 1854-6 the ‘Roman History’ followed. Its success was immense; in less than ten years it had been translated into most European languages. In 1858 he settled at Berlin, to live in a quiet suburb for nearly half a century. Politics still had his attention. He sat in the *Landtag* at intervals till 1882, fiercely opposing Bismarck’s domestic policy till a prosecution caused his retirement. Occasionally he stepped into foreign affairs, criticising the French in 1870, the Czechs

in 1897, the English in 1900. But he was politician only because he felt deeply. His real life was that of the scholar on the greatest scale. He wrote, organized, made others write. He created the great *Corpus Inscriptionum Latinarum* that now stretches to more than twenty stately folios; nearly half he compiled himself, the rest—no less a hard task—he made others compile. He re-edited the Digest, and half a dozen other ‘trifles.’ In 1871 he began to set the Roman constitution on a new basis by the first volume of his ‘Staatsrecht.’ In 1885 he described the Roman provinces in a fifth volume of his history, largely based on epigraphic evidence and possible only to the editor of the *Corpus*. So late as 1899 he issued a monumental work on Roman criminal law, and up to the last he continued a rapid succession of monographs small and large. All the while he was organizing other research. The vast group of great collections which the Berlin academy and other German institutions are now editing—the ‘*Monumenta Germaniae Historica*,’ and many more—owe much, some of them everything, to his initiating energy and organizing ability. Quite lately old age had threatened to touch him, and the illness of his wife made his days anxious. But his eye was not yet dim when the death that he had been dreading for another came suddenly to himself.

His was a unique intellect, remarkable before all things for its combination of sensitive, excitable, imaginative humanity with accurate, methodical, unwearying precision. In him alone, since Gibbon, the creative and the critical elements fully met. The result was, in the first place, an astonishing intellectual vigour and an unparalleled output of work. Fifteen years ago his publications had reached 1,000 in number, and while some of these were little things, others were huge folios. But more, he could organize. He could conceive a great co-operative scheme combining many labourers in it, could inspire, drive, or coerce them to fulfil their tasks, and control the minutiae of the undertaking to a safe conclusion. Few scholars, I imagine, and, perhaps, not many business men, have shown such practical power and imperative force.

And in virtue of these qualities he has done a work which is difficult to realize for its very size. No one remembers what the condition of Roman history was before Mommsen. Outside the

merely elegant and agreeable study of poetical texts there is no section of Roman antiquities which he has not illumined or even transmuted. In particular, he has begun and well-nigh perfected the use of inscriptions as the basis for the true narrative of the Roman empire, showing alike how to collect them and how to understand the mass of collected detail. No less important is his work on Roman constitutional law. There were constitutional writers before him as there will be others after him. But the logic and legal intuition, the grasp and completeness, of his 'Staatsrecht,' mark a real epoch.

*Handwritten text, likely a signature or a portion of a letter, written in cursive script.*

4. 26 / 18 83

*Handwritten signature: Georg von Hirsch*  
*Handwritten name: Momm*

FACSIMILE OF SIGNATURE AND PORTION OF LETTER OF THE LATE PROFESSOR MOMMSEN.

By his death our society loses one of its oldest and most distinguished honorary members (elected in 1883). It was appropriate that he should be an honorary member of this and of other English archaeological societies. For he had a sincere regard for our country, and, though he did not admire all our statesmen (he disliked Gladstone and Chamberlain about equally), he desired amity between England and Germany, and had many English friends. He took a vivid interest, too, in our northern antiquities of Roman date. He recognized that our Wall and military inscriptions were most valuable evidences both for the history of the Roman army and for the history of the

imperial frontier defences. In particular he hoped that further comparison of our Wall and the German Limes would illuminate each work. 'Though you won't enter the Triple Alliance (and you are quite right), I hope, regarding the Walls, the two nations will combine their researches and every discovery made on either side of the sea will be an appeal to the other.' So he wrote to me some years ago, *à propos* of excavations on our Wall, and though the recent course of discovery has tended rather to reveal differences than similarities between the two frontiers, it has also shown that a knowledge of the one is a real help to a better understanding of the other.

2.—WILFRED JOSEPH CRIPPS, C.B., F.S.A.

BY T. M. FALLOW, F.S.A.

I have been asked to say a few words about my old and valued friend, Mr. Wilfred Cripps, author of 'Old English Plate,' the news of whose decease on October 26th came as a heavy and unexpected shock to his many friends.

Although Mr. Cripps was seriously ill three years ago, and had never recovered his former vigour, the end came with unlooked for suddenness. He had been confined to bed since September, but this was not widely known, and I was myself unaware of it. That there was any imminent danger was only made known to his fellow-townsmen at the evening service in Cirencester church on Sunday, October 25th, when prayers were offered on his behalf. He passed away at three o'clock on the following morning.

Mr. Wilfred Joseph Cripps, C.B., was the head of a very old Cirencester family, members of which began to take a prominent part in the affairs of the town in the reign of queen Elizabeth. As time went on, the family became more and more prosperous and wealthy.

Mr. Cripps's grand-father, Mr. Joseph Cripps, represented Cirencester in parliament from 1806 to 1841. On his death in the latter year he was succeeded in the representation of the borough by his eldest son, Mr. William Cripps, the father of the subject of this memoir. Mr. William Cripps was at one time a Peelite 'whip,' and



*Yours ever,  
Wilfred Cripps.*

THE LATE WILFRED J. CRIPPS, C.B., F.S.A.

From a Photograph by Elliott & Fry of London.





was a lord of the treasury at the time of the Repeal of the Corn Laws. Mr. William Cripps married his cousin, Miss Mary Anne Harrison. She was descended from 'Parson Harrison,' who held the living of Cirencester for the long period of 63 years (1690-1753), and was a sister of the late Benjamin Harrison (of our own day), archdeacon of Maidstone and canon of Canterbury. By this marriage Mr. William Cripps had four children—three sons and a daughter. Of the sons Mr. Wilfred Cripps was the eldest. He was born in 1841, and is survived by his sister only, both his younger brothers having predeceased him. Mr. Cripps graduated at Trinity college, Oxford, in 1863, and was called to the bar two years later. Although he joined the Oxford circuit he soon retired from active legal work, and settled down to the life of a country gentleman doing much useful work both on the county council and as a justice of the peace. He received the distinction of a civil companionship of the Bath in 1887. Mr. Cripps was twice married, first to a daughter of the late Mr. J. R. Daniel-Tyssen. She died in 1881. He married secondly the countess Helen Bismarck, a relative of the famous German chancellor. His second wife survives him.

It is, however, of his antiquarian work that I ought more particularly to speak.

I first became acquainted with Mr. Cripps in the early part of 1877, when he was collecting materials for the now well-known book *Old English Plate*. For some time previously I had been examining old ecclesiastical plate in Yorkshire and noting the hall-marks on it. Mr. Cripps heard of this and eventually a correspondence began between us on the subject, and a friendship ensued which lasted till Mr. Cripps's decease. Letters and boxes of sealing wax impressions of hall-marks passed for many years almost daily between us, and I am not exaggerating if I say that we must have written some thousands of letters to one another about plate during the last quarter of a century. We did not so often meet, and it was only when we were both in London together that we did so, and I regret now, very much, that I never managed to accept Mr. Cripps's invitation, again and again repeated, to visit him at Cirencester.

The information I was mainly able to send to Mr. Cripps, before other fellow workers came on the scene, related to York and Newcastle

plate. It was our joint work which allocated the half leopard head and half fleur-de-lis mark to York. The compilation of the tables of York date-letters involved a great deal of planning and no little research. I have fortunately preserved Mr. Cripps's earlier letters dealing with this detail of the work, and his tentative schemes of the tables of York date-letters sent 'for your private eye only,' as he put it. Mr. Cripps was justly proud of this part of his work, and jealously (and successfully) guarded the copyright in it against one or two persons who thought fit to attempt to produce it in publications of their own with doubtful additions and 'improvements.'

As regards Newcastle Mr. Thomas Sewell, at one time warden of the Goldsmiths' company, gave a good deal of assistance, and a suggested list of Newcastle date-letters since 1702, compiled by him, formed the basis of the tables given in the first edition of *Old English Plate*.

I have a letter from Mr. Cripps by me, dated May 24, 1877, written prior to a special visit I paid to Newcastle to examine the church plate there. He says, 'Thank you for your letter. I think, in reply, I had better send you the sheet of Newcastle letters kindly given me by Mr. Sewell whose name is at the bottom of it. The early cycles want some correction I believe, and you will not be able to square the Otley mark with any on the list. Mr. Sewell has a collection of marks which I daresay he would let you look over. The church plate may give us the old Newcastle mark [before 1697] and perhaps a few date letters. My clerical correspondent in Newcastle, is the Rev. T. A. Stoodley, Lovaine place. He has kindly promised to help me in the church plate line. I do not know him personally, but heard that he was interested in this sort of thing and wrote to him.' This is the earliest allusion to any definite enquiry about Newcastle plate, and I may add, that both Mr. Cripps and I had expected to find that a town mark of a Catherine wheel which occurs up and down Yorkshire, might prove to be the old Newcastle mark. It is still unidentified, while the later researches of others have established what the old Newcastle mark was. The publication of the book on the old church plate of the diocese of Carlisle, gave a fresh impetus to the study of a subject, which, twenty-five years ago, had only attracted the attention of two or three antiquaries in

different parts of the country. Since then, workers in this field of archaeology have been numerous, and much excellent work has been done. In Northumberland and Durham the old church plate has been carefully examined by Mr. Blair and others, and it will not be forgotten that Mr. Cripps summed up their labours in a paper which he contributed to *Archaeologia Aeliana*, vol. XVI.

The care and pains which Mr. Cripps took in regard to plate and hall-marks in the north of England, was the same which he expended throughout the country. He was constantly collecting facts, and patiently and laboriously studying them, with the result that when *Old English Plats* appeared, it at once took a position from which it has never been dislodged. I believe no other work on any archaeological subject has ever before proved such a success, or has gone through eight editions in so comparatively short a period, and I am glad to hear from Mr. Cripps's widow that her great loss will not interfere with the preparation of the ninth edition, to be followed probably by many others.

It was not only old plate which interested Mr. Cripps. Of late years he had fitted up a museum attached to his house, in which he collected together a large number of Roman 'finds' which had been made at Cirencester. Mr. Cripps was elected a Fellow of the Society of Antiquaries of London in June, 1880, and when in town frequently attended the meetings of the society. He was also a few years ago made a member of the Goldsmiths' Company of London.

There is much else I could have said, but this notice has run to too great a length as it is. Otherwise I should have liked to have spoken of Mr. Cripps's generosity, not to say munificence, shown to his native town and its institutions. In the *Cirencester Parish Magazine* there is a cordial and touching reference by the vicar to Mr. Cripps's 'earnest old fashioned piety.'

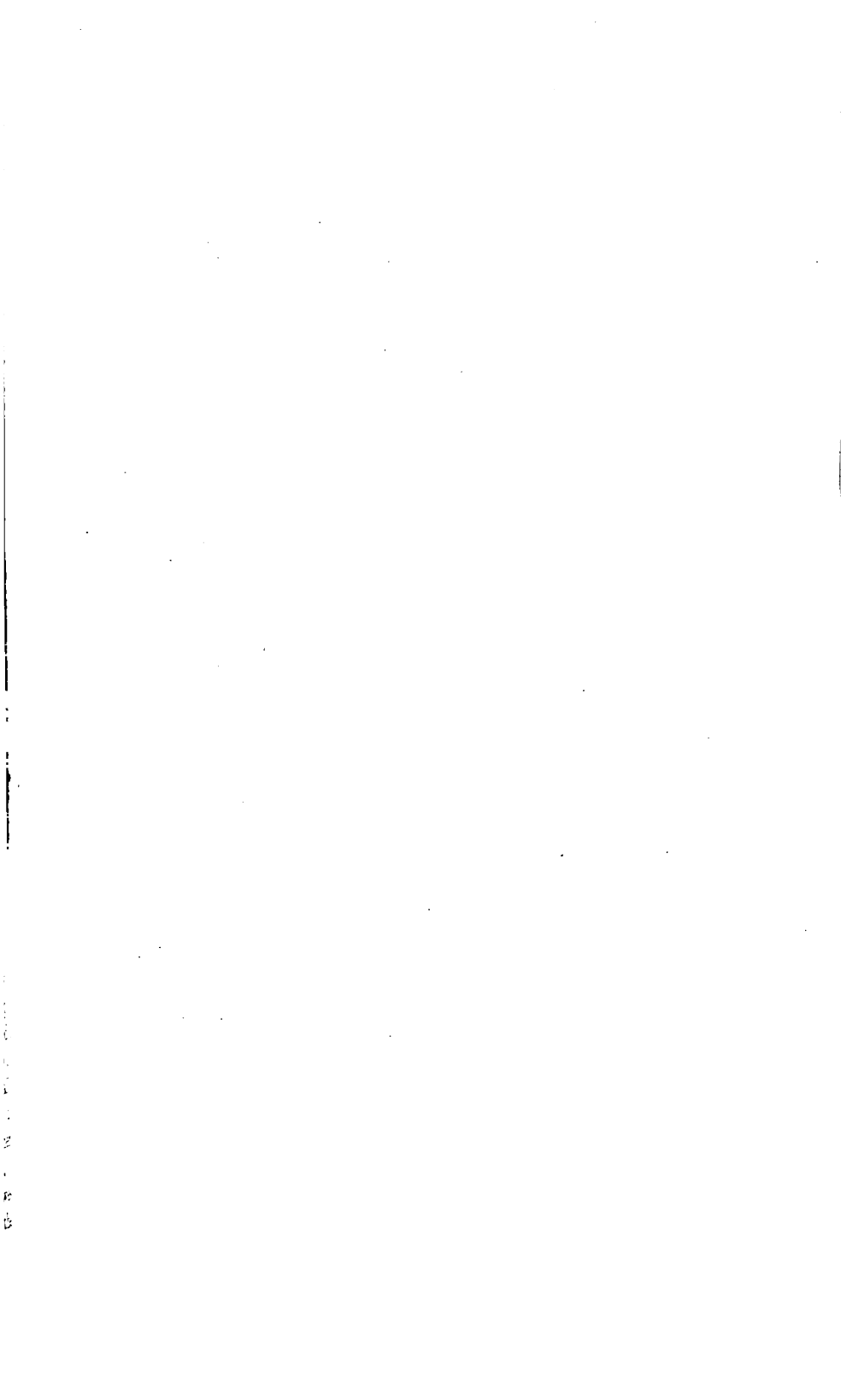
His last letter to me, dated August 3rd, 1903, bears a very friendly allusion to Mr. Taylor of Chipchase castle, and ends with the words, never, alas, to be fulfilled, 'I will write again soon'.

## XIIA.—DEED POLL OF PROPERTY IN NEWCASTLE.

By deed poll dated 12th June, 1534, the original of which is in the collections of Mr. Richard Welford, M.A., George Taillor of Newcastle, barber, gave to John Blenkinsopp of Newcastle, merchant, a tenement in the Iron Market there, which had been granted to him on the 20th June, 1500, by John Goldsborough, chaplain of St. Katherine's chantry in St. Nicholas's church, upon condition of annual payments of 13s. 4d. to the grantor and his successors; 6s. 2d. to John Lawes, another priest of the same chantry and his successors; and 6d. to the chaplain of the chantry of the Virgin in the same church—20s. altogether. The following extracts from the document (which is too long for entire transcription), give the position of the property and the conditions of the grant :—

Omnibus Christi fidelibus ad Quos hoc presens Scriptum peruenit, Georgius Taillor ville Novicastro super tinam Barber Salutem in domino sempiternam. Quod cum Johannes Goldesburghe nuper capellanus perpetuus cantarie ad altare sancte Katherine in Eccl'ia Sancti Nich'i in villa Novicastro predict' cum consensu et voluntate Ric'i hardinge Armigeri veri patroni cantarie predict' tradidit concessit et ad feodi firmam dimisit michi p'fat' Georgio taillor totum illud ten't' cum sine pertinen' prout scituat' est in dicta villa in vico vocat' le Iron Market inter ten't' quondam Matilde Robynson et modo in tenura Henrici Cooke pictoris ex parte australi et ten't' Will<sup>m</sup> Johnsonne modo in tenura Mathei Stephansonne ex parte boreali et extend' se a vico predict' ex parte orient' usque ad le comune gutter ex parte occidentali per suas rect' diuisas . . . . Reddend' inde annuatim Johanni Goldesburghe et successoribus suis capellanis perpetuis cantarie predict' tresdecem solidos et quatuor den'ios ad festa sancti martini in yeme et pent' [illegible] per equales porciones in p'p'um. Et Johanni lawes capellano perpetuo cantarie ad dictum altare Sancte Katherine in dict' eccl'ia et successoribus suis capellanis perpetuis dict' cantarie sex solidos et duo den'ios annuatim ad festa predict' in p'p'um. Et capellano perpetuo cantarie ad altare beate marie virgine in eccl'ia . . . . predict' sex denarios annuatim in p'p'um ad festa predict' prout in quibusdam indenturis inde confect' et sigillat' quarum dat' est vicesimo die Junii Anno Regni Regis [Henrici] septum [sic] quinto-decimo plenius liquet et apparet. [Various covenants follow]. In cuius Testimonium huic presenti scripto meo sigillum meum apposuit. Dat' duodecimo die Junii Anno Regni Regis Henrici octam vicesimo sexto. [Seal missing].

In the books of the Merchants Company of Newcastle, edited by Mr. F. W. Dendy (101 publ. Surt. Soc., p. 187), John Blenkinsopp appears as apprenticed to Henry Bednell in 1517-18, enrolled 1522-23, and admitted 1524-25. In the same volume, p. 160, George Taillor, barber, occurs as paying 40s. for licence to sell all manner of corn. Both Blenkinsopp and Taillor are entered in a muster of the fencible inhabitants of Newcastle in 1539. the former with a jack, a coat plate and a bow, and the latter with a jack, a steel cap and a bow. The chaplains, Goldsborough and Lawes answered to their names at a visitation in Gateshead church on the 16th November, 1502.





J.P. GIBSON, PHOTO.

THE PRETORIUM BORCOVICUS LOOKING SOUTH.

### XIII.—EXCAVATIONS ON THE LINE OF THE ROMAN WALL IN NORTHUMBERLAND.

#### THE ROMAN CAMP AT HOUSESTEADS.

BY R. C. BOSANQUET, F.S.A.

#### HISTORY OF THE SITE.

The recent history of the Roman station of BORCOVICIUM begins almost exactly two hundred years before the excavations which it is the purpose of this report to record, on April 2nd, 1698, when Thomas Gibson 'agreed with Nicholas Armstrong and John Mitchelson for the purchase of Housesteads, which estate, on May 10th and 11th in the same year, was conveyed to his son George.'<sup>1</sup>

A hundred years earlier Camden had to forego visiting this part of the Wall. He speaks of the district between Caervoran and Walwick much as we speak of Albania to-day—'I could not with safety take the full survey of it, for the rank robbers thereabouts.'<sup>2</sup> The Nicholas Armstrong who sold Housesteads in 1698 was amongst the last of those 'lawless thieves and robbers, commonly called moss-troopers,' who infested Tynedale up to the close of the seventeenth century.<sup>3</sup> The change of ownership brought Housesteads within the pale of civilization, and it was not long before its Roman remains were made known to the learned world in a letter from Christopher Hunter to Dr. Martin Lister, printed in the *Philosophical Transactions* of the Royal Society (vol. xxiii. p. 1131). It is dated Stockton, May 15th, 1702, and is accompanied by sketches of inscriptions. After speaking of an inscribed slab and a vaulted room discovered at Chesterholm, 'in a field called the *Bower*,' he proceeds:—

<sup>1</sup> Hodgson, *Northumberland*, part II. vol. iii. pp. 393—5, pedigree of Gibson of Corbridge, Stonecroft, and Stagshaw-close-house, a family which in the eighteenth century gave several bishops to the Roman Catholic church. George Gibson, the first of Housesteads, joined in the rising of 1715, and died in prison the following year.

<sup>2</sup> It is thought that he refers to Housesteads under the name of Chester-in-the-Wall. Stukeley, however, gives the name of Chester-on-the-Wall to *Æsica*.

<sup>3</sup> Hodgson, *loc. cit.* p. 334. 'A notorious thief, and under sentence of death in 1703.'



The other inscriptions were all found near the *Housesteads*, a Place so called from the abundance of Ruins; this is about half a mile from *Busy Gap* towards the West, and is placed just within the *Roman Wall*. Among the Ruins I found several Pedestals, two or three Pillars, two Images, but somewhat defaced. The Stone Tab. 1, No. 2, lies against a Hedge a quarter of a mile from this place. That marked Tab. 1, No. 3, tho' only part of an Altar, I thought worthy transcribing, because I am in hopes of recovering the other part as soon as Harvest is over, this part having been tore up by the Plough. The two Altars, Tab. 1, Nos. 4 and 5, are very legible; I found them on a rising ground South of the *Housesteads*; they call it *Chapel hill*, and suppose a Foundation, which is visible there, to have been a Chapel; and say that within the memory of their Fathers they used to bury their dead here: I dare not determine in this point.<sup>4</sup>

The mention of the 'plough' and of 'harvest' goes far to explain how the 'inscriptions, broken pillars, statues, and other pieces of sculpture,' which so astonished Alexander Gordon a few years later, came to be 'all scattered along the ground.' In 1698, to judge from the modest sum of £58 which Thomas Gibson paid for it, the estate of *Housesteads* may have been an unenclosed and uncultivated waste. But in 1702 the new tenant was growing corn in the rich valley to the south of the camp. That implies some sort of enclosure, which again implies search for stones with which to build a wall, and accounts for the two 'very legible' altars which Hunter saw on the *Chapel-hill*. Year by year, as spade and plough explored the burial-ground and the forgotten shrines of the Roman garrison, the number of these monuments increased. Six years after Hunter's visit the anonymous author of *Certain Observations upon the Picts-wall, in a Journey made between Newcastle and Carlisle, in the year 1708, on purpose to Survey it*, which are incorporated in the later editions of *Camden*, gives a far longer catalogue:—

Vast quantities of Roman altars with inscriptions have been dug up, as also abundance of images of their gods, several coins, etc. Seven or eight Roman altars are standing there now, being lately dug up, three or four of which have their inscriptions pretty plain and legible; one is dedicated to Hercules, another to Jupiter and *Numinibus*, others to other deities, and all by the Cohors Prima *Tungrorum* which kept garrison here. I saw there also a great number of statues.

<sup>4</sup> Of the inscriptions referred to, No. 2 is *C.I.L.* VII, 693, a long and obscure tomb-inscription. No. 3, *C.I.L.* 658, a dedication mentioning the Sixth Legion. Nos. 4 and 5, *C.I.L.* 640 and 638, altars dedicated *I.O.M. et numinibus Aug.* by *Q. Verius Superstes* and *Q. Julius Maximus* respectively. *Lapidarium*, pp. 197, 194, 172 and 173.

To quote the whole of this description, or of those which Gordon, Stukeley, and Horsley have left us, would take up too much space.

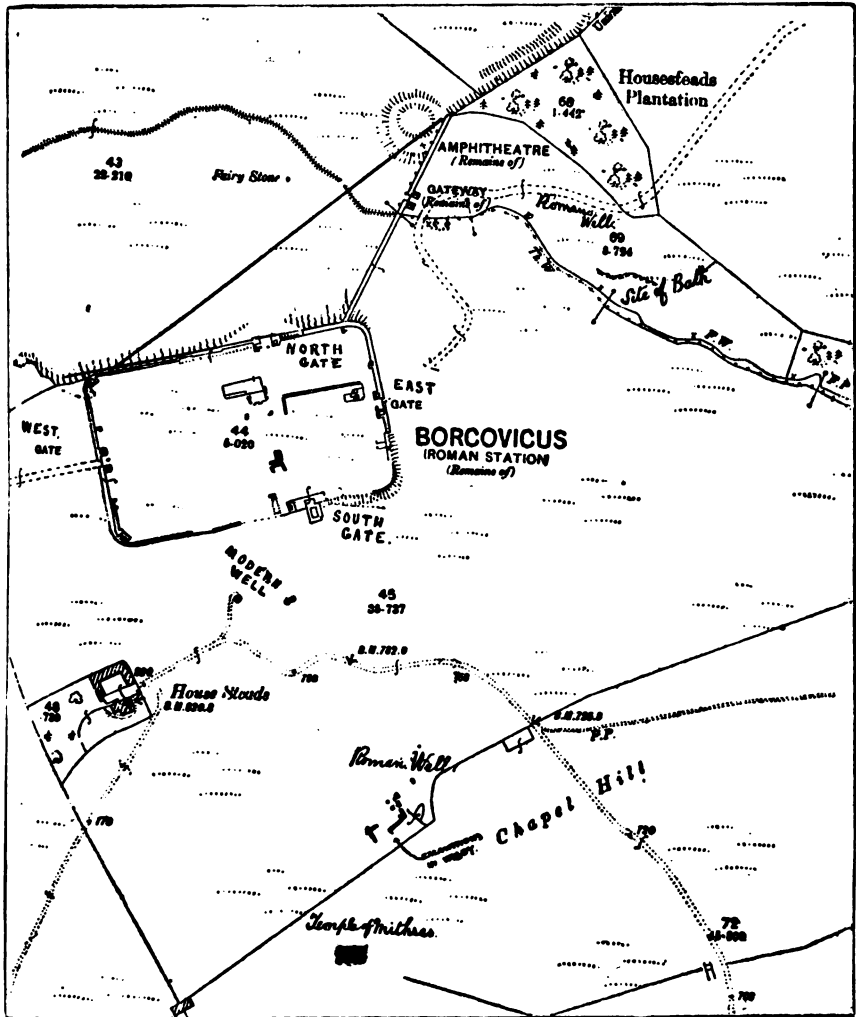


FIG. 1.—HOUSESTEADS AND ITS SURROUNDINGS (Scale about 1/5000).

The monuments which they saw have been identified, and for the most part figured, in the *Lapidarium Septentrionale*. It will be sufficient to state the results of a careful comparison of the five accounts. The

dates of their visits are : Hunter 1702, the Anonymous 1708, Gordon 1724, Stukeley 1725, and Horsley before 1730.

(1) Although nowadays there is little to see outside the actual fort, the early visitors saw traces of buildings extending far along the hill-side and valley to the south and east. 'The extent of this city,' according to the Anonymous, 'is almost seven hundred yards one way and about four hundred from north to south the other ; it lies all along the side of a pretty steep hill ; but that part of the valley where the vallum or square trench seems to have been, is not by far so large.' The 'vallum' is here the camp-wall, which encloses an area of two hundred by one hundred and twenty yards. Gordon mentions 'vestiges of streets which appear to cover above eight acres of ground in one place,' and Horsley 'visible ruins of streets and buildings' in 'a field south-east of the station.'

(2) The altars and sculpture which they saw were then lying in the valley, and had been found there, not in the camp.<sup>5</sup> We can determine with some probability the spots from which they came. Thus, all accounts concur in placing at least two altars dedicated *I.O.M. et numinibus Aug.* on the Chapel-hill, in connexion with a supposed temple of which the foundations were still visible : and the figures of the Mother Goddesses on the bank of the Knagburn, at the spot where a column of great size figured with other stones in Bruce's *Roman Wall* (plate xi.) is still lying. The two sites are expressly distinguished by the Anonymous, who, after describing several pieces of sculpture, including a relief of Victory and another of an archer, which are now in the Blackgate museum, and the group of *Matres*, which is now at Minsteracres, continues :—

Near the place where all these and other rarities were found there was also a column above two yards in length and two feet in diameter, lying sunk in the ground at one end. The people of the place have a tradition of some great house or palace that was at this place. This is at the southernmost part of the east end of the city in a bottom ; three hundred yards west of which, upon a little eminence, are to be seen the foundations of a Roman temple but the inhabitants call it the Chapel-steed. Here lie two Roman altars, etc.

Horsley describes the group of *Matres* as lying 'about a furlong or less to the east, near the side of a brook, and close to a hedge.'

<sup>5</sup> The relief (*Lap. Sept.* 234) of three nymphs is an exception. Horsley expressly states that he saw it in the camp.

Hodgson noticed that here, 'on the west side of the Knagg-burn, where it enters the inges, the ground is irregular, with the remains of considerable buildings.'<sup>6</sup> Gordon saw this triple group as well as two single figures of the same type 'in a field at the east end of this old town.' Three other single figures have come to light since, and the five are now in the Blackgate museum. It has been conjectured that the column which alone remains upon the spot had rolled down the hill; but the evidence rather indicates that a temple of the Mother Goddesses, such as is known from inscriptions to have existed at Benwell and at Castlesteads,<sup>7</sup> once stood here upon the bank of the stream. As for the altars and supposed temple<sup>8</sup> on the Chapel-hill, the discovery in 1822 of the altars and temple of Mithras at its west end, and in 1885 of the altars of Mars Thingsus on its northern slope, and the fact that at other stations similar groups of altars have been found outside the camp, make it clear that this hillock was the religious centre of the settlement. The series of altars dedicated by successive commanders of the garrison, which came to light in the early years of the eighteenth century, may have stood in a conspicuous position on its top, while the shrines of Mars and Victory, Mithras, and others, occupied lower ground in the immediate neighbourhood.

(3) The discovery of these monuments, and the partial obliteration of the extensive *house-steads* which the early travellers noticed, seem to have been due to the process of bringing waste land under cultivation, to the removal of foundations that impeded the plough and the collection of materials for walls, not to direct antiquity-hunting. There was a little desultory digging.<sup>9</sup> Gordon and sir John Clark 'caused the place to be dug where we were then sitting amidst the ruinous streets of this famous *oppidum*, and found another small statue of a soldier,' which the engraving enables us to identify with

<sup>6</sup> *Arch. Ael.* o.s. I. 271.

<sup>7</sup> Benwell, *C.I.L.* VII, 510, a temple of the three *Matres Campestres*, restored by a prefect of Ala I Asturum in 238 A.D. Castlesteads, *ib.* 887, a temple of the *Matres omnium gentium* restored by a centurion. *Lapidarium*, pp. 22 and 441.

<sup>8</sup> Gordon says that the foundations were circular, and this is not improbable. For circular buildings, which may have been temples, see the excavations at Ellenborough and Hardknott, *C. and W. Trans.*, vol. v. p. 244 and vol. XII. p. 412.

<sup>9</sup> 'Researches for antiquities,' says Hodgson, 'seem to have been first and afterwards more frequently made here than at any other station on the line of the Wall.' But anyone sufficiently interested to dig would have thought it worth while to carry off the spoils.

a figure now at the Chesters. And Warburton, who certainly dug with some success at VINDOLANA, is said to have opened the tumulus beside the military road at Housesteads. Otherwise we hear nothing of excavation, and it is plain that antiquities were tolerated when chance brought them to the surface rather than deliberately sought for. Here is Stukeley's account of the state in which he found them :—

When we were led lower down into the meadow we were surprised with the august scene of Romano-British antiquities, all in the most neglected condition: a dozen most beautiful altars; as many fine *basso-relievos*, nearly as big as the life, all tumbled in a wet meadow by a wall-side, and one on the top of another, to make up the wall of the close; the *basso-relievos*, some with their heads down the hill, particularly an admirable image of Victory, both arms knocked off; one large soldier, a sepulchral stone, with his short sword hanging at his right side, the man told us was condemned to make a pig-trough on; but some gentlemen, full timely, with a small sum for the present relieved him.

This pitiful description is borne out by plate 76 of his *Itinerarium Curiosum*, which is a very rough sketch of the site, entitled *A Cumulus of Roman Antiquities at Housteads*, taken from the east end of the Chapel-hill ridge in September, 1725. In the foreground on the left is the 'Chapelstead' strewn with altars, in the centre funeral monuments and other sculptures piled against the wall, to the right a group of *Matres*, while in the background rises the camp, brought unduly near, with a farmhouse standing in the south-west corner just where our excavation exposed its foundations.

Proprietor succeeded proprietor, and still that wonderful collection of monuments was left lying in the open. A new farmhouse was built towards the end of the century, and one of the Chapel-hill altars was dragged up to form the 'mantle-tree' of the hearth. The group of Mother Goddesses found its way to the home of the Silvertops, who were connected with the Gibsons by marriage, at Minsteracres. But in 1810 Hodgson found most of the stones seen and described by Horsley still lying in the same field, and it was only about 1813 that George Gibson, the great-great-grandson of the original purchaser, removed them to Stagshaw-close-house. His name deserves to be held in honour, for he afterwards gave the whole series to the Newcastle Society of Antiquaries, and so established the nucleus of the present collection. During that century of exposure

few had been broken up, despite Stukeley's ominous story of the pig-trough, fewer still removed from the ground, though in the last century it was quite the fashion to transport such antiquities to country houses. If the Gibsons took little interest in their open-air museum, they at least had some idea of its value and would neither have it destroyed nor dispersed. The orders under which George Gibson's dykers were working in 1822 when they discovered the Mithraeum—they might dig up 'any loose stones or old walls, on condition that they neither used nor destroyed any that were inscribed or curiously carved'—must have been traditional on the estate.

The era of scientific enquiry began with John Hodgson, vicar of Hartburn, and author of the *History of Northumberland*. He had visited the camp in 1810; there is a graphic description of its ruins in the volume on Northumberland which he soon afterwards contributed to *The Beauties of England and Wales*. In June, 1822, his attention was specially drawn to the site by the discovery of the temple of Mithras; and on July 23rd he undertook a small excavation, the first of several short campaigns. 'At four different times,' he writes, 'I have attended researches at this station, thrice in company with the late Rev. A. Hedley, and once or twice with the Rev. James Raine, Mr. Thomas Hodgson, and Mr. Henry Turner, but was each time driven from the ground by heavy rains.' He was a close and accurate observer, and his published descriptions of what was then discovered furnished useful clues to the excavators of 1898. By the kindness of his grandson, Mr. J. G. Hodgson, I have since been allowed to make extracts from a journal containing sketches, plans, and rough notes jotted down upon the spot, which in some respects supplement the record in the *History*. These will be quoted in the description of the buildings to which they refer. Meanwhile it will be convenient to summarise the work done by these pioneers.

1822, July 23. The western half of the South Gate was opened, and some steps near the middle of the camp, probably those on the north side of the Praetorium, were examined.—*Arch. Ael.* 4to, I. 266.

1830, July 7-9. Four men were employed in examining the projecting chamber on the east side of the South Gate, the kiln built into the gate-tower, and the building north of the Praetorium containing a similar kiln (block VIII). The face of the Wall was cleared on Cuddy's Crag.—*Journal*, Z, 75-82. *Memoir*, II. 175, 177.

1831, June 13-15. Thirteen men were employed in continuing the excavation of the South Gate, and uncovering a hypocaust (block xv.) near the East Gate.—*Journal*, Z, 264-272. *Memoir*, II. 206.

1833, July 15-19. The East Gate, a tower to the north of it and the West Gate were examined.—*Journal*, Z, 504-514.

Although the very idea of excavation was new and strange, and Hodgson at first met with little local support, he was encouraged to persevere by the enlightened generosity of Henry Petrie, keeper of the records in the Tower of London.<sup>10</sup> In 1830 he notes in his journal that of the friends for whose help and companionship he had hoped not one had come to join him. But enthusiasm such as his is contagious. In the following year his friends mustered in some force, and in 1833 the 'houking,' as he calls it, was no longer a private enterprise, but 'a great digging,' undertaken and organized by a committee of the Newcastle Society of Antiquaries.<sup>11</sup>

In consequence, it may be supposed, of the death, in June, 1834, of George Gibson, the owner of Housesteads, who had given his cordial support to the excavations, work was not resumed that summer. Opposition on the part of the farmer at Housesteads, and the death in the following January of Anthony Hedley who had entertained the excavators at Chesterholm, contributed further to interrupt the researches that had been so successfully begun. In the last instalment of the *History* which Hodgson lived to see published (part II. vol. iii. 1840), the memorable volume in which he declared Hadrian to have been the builder of the Wall, the results of the excavations of 1830-1833 were printed for the first time.

'Thos. Gibson, merchant, inherited Housesteads from his brother George; and in 1838 sold it to John Clayton, of Newcastle, esq.' This, one of the latest entries in Hodgson's latest volume, marks the

<sup>10</sup> Raine's *Memoir*, II. p. 206; see also p. 152, a letter from Hodgson to Henry Petrie, written during a visit to London in May, 1829:—'As soon as I get home I will endeavour to embody the unpublished information I have respecting the Roman history of Britain, and will also seriously set about some diggings in our northern Roman stations, the result of which shall be communicated to you,' and later letters, pp. 160, 165, 177, and 289.

<sup>11</sup> At the annual meeting on February 5th, 1834, Hodgson read 'an elaborate report . . . with respect to the discoveries made in the month of June last by the committee appointed to superintend the investigation . . . for defraying the expenses of which a subscription had been entered into by the members of the Society and a few public-spirited individuals. Further proceedings in this celebrated station are contemplated during the present year.'—(*Gentleman's Magazine*, 1834, I. p. 316).

beginning of that period in the annals of the Roman Wall which will always be associated with the names of John Clayton and John Collingwood Bruce. The disinterment of the walls and gates of Housesteads was one of the great public services by which Mr. Clayton earned the gratitude of his own and future generations. Disinterment, his own word, most aptly describes the distinguishing characteristic of his excavations, the unflinching thoroughness which his labourers were taught to expose walls down to their footings, replace fallen stones, cope the top with protecting turf, and remove all unsightly *débris*. Now it was a mile-castle, now a long stretch of the



FIG. 2.—THE WEST GATE FROM THE INSIDE.

(Excavated by Mr. John Clayton.)

great Wall, now, as in the case of BORCOVICIUM, the ramparts, gates, and towers of a whole camp. Where Hodgson with his slender resources could only probe and trench, John Clayton, working on a larger scale, revealed and restored to his countrymen one of the greatest of our national monuments.

Work at or near Housesteads seems to have been begun in 1849 or 1850, and continued almost every summer until 1858. Progress was slow, Mr. Clayton's method being to entrust the excavation to a small number of highly-skilled workmen, whose accumulated experience in some measure made up for want of supervision. Dr. Bruce credits



two of them—Anthony Place, whose grandson worked for us in 1898, and Walter Rutherford—with having carried out a large proportion of the work at Housesteads. Unfortunately they do not seem to have thought of recording the dimensions of the buildings which they uncovered, as was done by William Tailford, the skilled excavator who for many years worked under Mr. Clayton's orders at OILURNUM and PROCOLITIA, and is now custodian of the Chesters museum. In the absence of a contemporary plan it is impossible to define the exact extent of the work done within the camp. The following clues are drawn from Dr. Bruce's *Roman Wall*, the editions of 1851, 1853, and 1867 being referred to as (1), (2), and (3), the *Archaeologia Aeliana*, and the isolated volume of *Proceedings* which was printed from 1855 to 1857 :—

1850. The west gate partly excavated. Plan and views in Bruce, *Roman Wall* (1), p. 216 (preface dated January 1st, 1851).
- 1851, June. The west gate 'was being further and carefully excavated.' C. Roach Smith in *Gentleman's Magazine*, November, 1851, p. 504.
1852. The south gate. 'The rubbish had been partially removed in 1830; in 1852 it had been wholly removed.'—Bruce, *Roman Wall* (2), p. 185 (preface dated November 5th, 1852; title page, 1853).  
The north gate 'has but just been disclosed to the eye of the antiquary.'  
'At the time of writing the excavations are not yet complete.'—*Ibid.* pp. 186, 187.  
'The recent excavations at this station have been confined to its outline, and the curtain-wall, with the gates and guard-towers, have been satisfactorily disclosed. . . . The space within the walls of the station remains unexplored. The labours of the excavator are restricted by the climate to the summer; shortly before the close of the last season they were applied for a few days within the walls of the station.'—*Ibid.* appendix, p. 447.
1853. 'Notes on the Disinterment of the Mile Castle immediately West of the Roman Station of Borcovicus,' by John Clayton, in *Arch. Ael.* (4to ser.), iv. p. 269.
1854. 'A few days before Christmas an altar dedicated to Cocidius Silvanus was found accidentally when removing an accumulation of ruins from the side of a wall to provide a fence against cattle' (*Proceedings*, 1855, p. 4), in the south-west corner of the station.—*Roman Wall* (3), p. 193. This discovery probably directed the excavations of the following year to that point.
- 1855, August 6th. The society visited Housesteads. The west wall and the buildings against it, from the tower at the south-west corner to the west gate, had recently been laid bare.—*Proceedings*, 1855, p. 45.

- 1856, November 5th. Mr. Clayton read a paper, illustrated by plans, on a passage through the Roman Wall, in the valley of the Knagburn, which had recently been discovered and explored.—*Proceedings*, 1856, p. 186. The plan is given in Maclauchlan's *Memoir*, p. 93.
- 1857, May 6th. Dr. Bruce described the progress of the excavations. 'The wall between the recently discovered turret on the east side of the Knagburn and the station has been cleared of its rubbish, and the fallen stones replaced. The interior of the north wall of the station has been entirely cleared, and the whole of the north gateway . . . completely displayed.'—*Proceedings*, 1857, p. 234.
1858. 'Not far from the southern gateway are some buildings which in 1858 were freed from the enormous mass of *débris* which enveloped them.' This refers to the east end of block XII.—Bruce, *Roman Wall* (3), p. 188.

For the next twenty-five years there is but little record of excavation on this site.<sup>12</sup> Mr. Clayton was exploring other parts of the great barrier, especially the fort of CILURNUM, and it was only in the evening of his life that an accidental discovery recalled his attention and that of many other scholars to the ruins of BORCOVICIUM. In November, 1883, the shepherd at Housesteads noticed a carved stone projecting from the foot of the northern slope of the Chapel-hill. Digging revealed two altars of unusual size and a sculptured stone in the form of an arch or door-head, all of which are now preserved in the museum at the Chesters. The dedication to deities hitherto unknown, Mars Thingsus and the two Alaisiagae, Beda and Fimmilena, and the bas-relief representing an armed god attended by a goose and approached from either side by a worshipper carrying a wreath, gave rise to a prolonged discussion among students of Teutonic antiquities.<sup>13</sup> Further excavations in June, 1884, led to

<sup>12</sup> In November, 1863, however, Mr. Clayton exhibited to the Newcastle Society of Antiquaries two coins 'found within the last few days' at Housesteads. *Arch. Ael.* vi. 195, and *cf.* 200 and 225.

<sup>13</sup> See *Arch. Ael.* vol. x. pp. 148-172, especially the papers by Clayton and Hübner, with plates I—III; Haverfield's account of the inscriptions in *Ephemeris Epigraphica*, vol. VII. pp. 1040, 1041; and the article, *Alaisiagae*, by Ihm in Pauly-Wissowa, *Real-Encyclopädie*. The dedicators of one altar are described as *cives Tuihanti cunei Frisiorum ver. ser. Alexandriani*. The words *ver. ser.*, which had baffled the commentators, have recently been explained by Mommsen as perhaps standing for *veredarii servi*. An inscription found at Walldürn on the German *Limes* associates *Brittones et dediticii* and seems to justify *servi*. *Veredarii* (from *veredus*, a fast horse) appear among the frontier-troops in the second and third centuries. A *numerus burgariorum et veredariorum* formed the garrison of a fort in Lower Dacia about 140 A.D. In late authors the name has the special meaning of 'despatch-riders,' but the *veredarii* of the inscriptions may, at any rate in some cases, have been irregular cavalry. See *Limesblatt*, 659 ff.

the discovery of a missing piece of the sculptured stone, of two uninscribed altars, and of a Roman well. The remains of the supposed temple of Mars on the Chapel-hill were examined without result, and trenches were cut round about it, 'but no buildings could be found *in situ*, and the very foundation stones had been taken up and removed.'

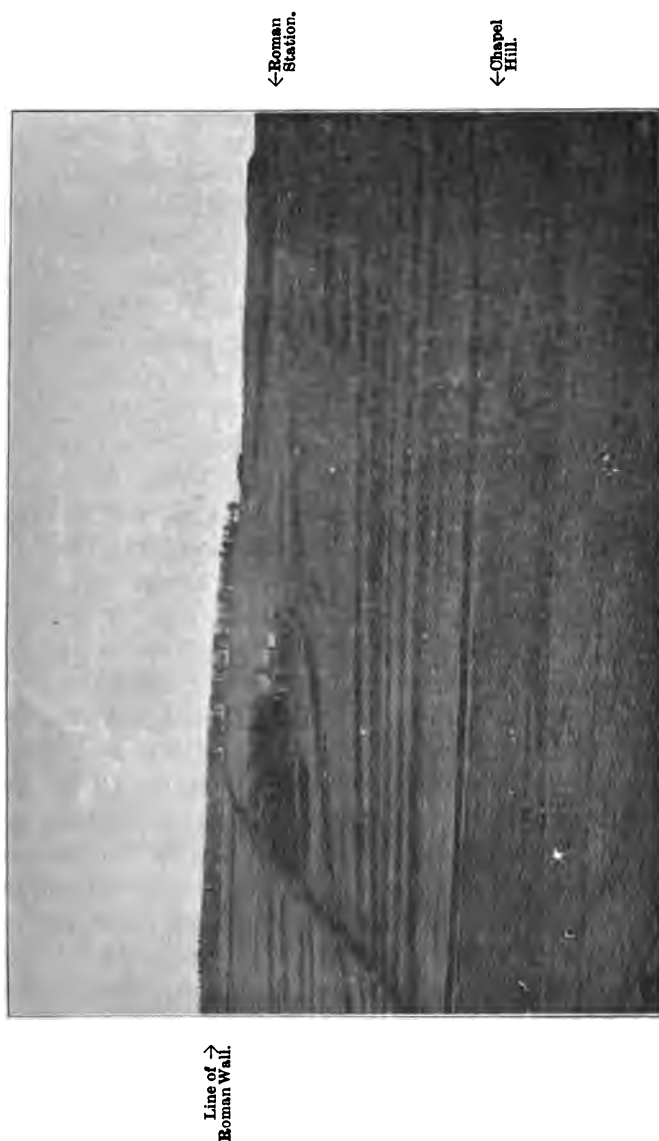
The next excavations at Housesteads were those undertaken by the Newcastle Society of Antiquaries, in the summer of 1898.

#### THE EXCAVATIONS OF 1898.

Work was begun on June 21st, and came to an end on October 29th, the last four weeks being devoted to filling in the trenches. The excavations were supervised throughout by the present writer. Very valuable aid was rendered by Mr. A. C. Dickie, formerly architect to the Palestine Exploration Fund, who undertook the task of preparing plans and drawings, and spent the greater part of July and August at Housesteads. We had an experienced foreman, Mr. Thomas Smith of Haltwhistle, and, when he was obliged to leave us to fulfil another engagement, an efficient successor was forthcoming in John Nicholson, one of our workmen. At first only ten men were employed ; later the number was increased to fifteen.

The fort of *BORCOVICIUM* stands on the brow of the basaltic cliffs which here interpose a natural barrier, sloping up from the south, and falling in abrupt precipices to the north, between the rolling sandstone uplands bordering South Tynedale and the desolate tract of moor and moss known as the Forest of Lowes, which extends northward to the Scottish border. The north gate opens almost upon the face of the cliff, the south gate upon a grassy hill-side descending to the valley which has yielded so many sculptures and inscriptions. Fig. 3, from an admirable photograph by Mr. J. P. Gibson, to which the reproduction does less than justice, shows this valley in the foreground, a hollow marking the sight of the Mithraeum on the right, and, farther to the right, the lowest part of the Chapel-hill, the fruitful scene of former excavations. In the background rises the green ridge, crowned by the ramparts of the camp. Along its foot extend five well-marked and apparently artificial terraces, relics, perhaps, of Roman cultivation. It would be interesting to ascertain their real nature—indeed, the whole slope between the south gate and the

valley deserves exploration. A trial trench showed the level bottom between the terraces and the field-wall to the south of them to be full



of Roman remains, walls, pottery, and even leather and woodwork well preserved in the deep wet peat.

Rich and tempting as these remains of the civil settlement appeared, it was decided, with good reason, to devote the first season to the internal buildings of the camp. No systematic exploration of the whole internal area of a Roman camp in the north of England had ever been undertaken. BREMENIUM, CILURNUM, AESICA, and South Shields, had been partially excavated, but in each case the work had stopped short when little more than half the area had been cleared, and the published plans were only tantalising fragments. On the other hand, the Society of Antiquaries of Scotland had recently secured a remarkably complete plan of the outlying fort at Birrens in Dumfriesshire. It was time that the anatomy of some one of the camps on Hadrian's Wall should be studied in its entirety. BORCOVICIUM seemed a promising site for the purpose. Thanks to the judicious enthusiasm of Mr. John Clayton, the circuit of the ramparts and the gates had been excavated, so that little remained except to plan them. The internal buildings, though much disturbed by desultory digging and the wholesale removal of stones for walling and draining, lay near the surface, and while there was not much hope of finding inscriptions or important minor antiquities, there was every reason to believe that the plan of the internal streets and buildings could be obtained at comparatively little cost. This proved to be the case. When the work began it was proposed to dig only for one month, and to determine by means of trenches the broad outlines of the anatomy of the camp. When, a fortnight later, it was decided to clear the Praetorium completely, it became evident that a much longer time was needed. Nevertheless, at the end of two months the Praetorium and six barrack-rooms had been cleared out, some points of special interest outside the camp, the amphitheatre, two wells, and the shrine of Mithras, had been investigated, and the course of the streets, the number and outline of the blocks, and the internal arrangements of some of them had been ascertained. A wish was then expressed, at a joint meeting of the northern archaeological societies, held at Housesteads on August 25th, that the blanks in the plan should be filled up, doubtful points determined, and conjectures verified. Accordingly, I devoted a third month to the task of completing the plan, which is now as perfect as anything short of entirely digging out the whole camp could make it. There is only

one point within the walls where further excavation is urgently needed, in the south-east corner, the lowest part of the whole area, where, in a 'pocket' of deep earth, a cistern and other buildings were discovered in the last weeks of the excavation, but were only imperfectly investigated.

Reference to the plan of the site as a whole (fig. 1, p. 195), and to the longitudinal sections (fig. 4), shows that the site chosen for the camp slopes gradually from west to east, and somewhat steeply from north to south. Its longer axis runs along the ridge, and while the northern half of the enclosure is comparatively level, the southern half falls away at an inconveniently sharp angle. With lower ground on north, east, and south, it certainly occupied a strong position. It is true that a more level platform might have been found on the higher ground to the west, near the adjoining mile castle. But there were two reasons for preferring the site actually selected, which outweighed the disadvantages of irregular levels. First, the camp in its present position commands the pass through the depression immediately to the north-east, where the barrier of basaltic cliffs disappears. Secondly, the Knagburn, which forces its way through this opening, and several springs on the adjoining slopes, afford an abundant water supply which would have been lacking on the higher ground.

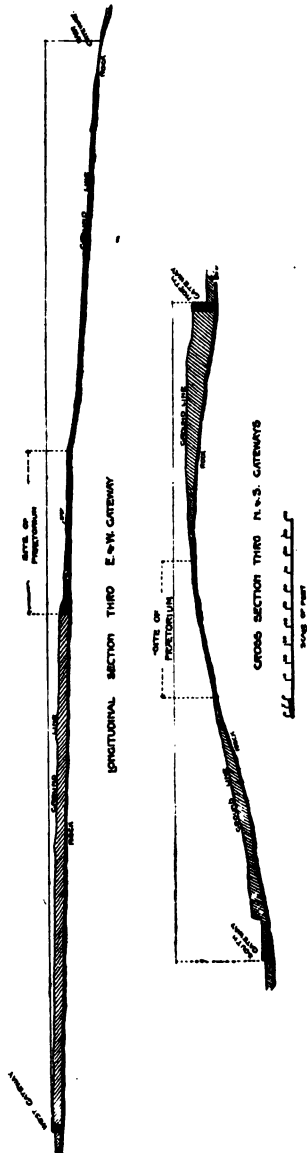


FIG. 4.—SECTIONS THROUGH THE CAMP.

The conditions of the site may have influenced the form of the camp, which is unusually narrow in proportion to its length. It measures six hundred and ten feet from east to west, and three hundred and sixty-seven from north to south ; the area enclosed is nearly five acres.

### THE PRAETORIUM.

#### THE EXTERIOR.

Owing to the slope of the rock on which the Praetorium stands, the southern half of it and in a special degree the south-east angle,



FIG. 5.—SOUTH WALL OF PRAETORIUM FROM THE SOUTH-EAST

rests on an artificial platform composed of whin and freestone chippings mixed with yellow gravel, and the south wall, which had to hold up this substructure, is built of very large blocks laid as headers and extending nearly three feet inwards (fig. 5). At the south-east angle the footings of the outer wall lie as much as seven feet below the floor level of the interior. In consequence of its height and larger masonry, this half of the building was especially exposed to the ravages of builders in search of material. Fortunately these plunderers seldom do their work thoroughly. Two, in one place three, courses of

the south wall survived, and scores of blocks from the upper courses were found piled up ready for removal in the narrow roadway beside it. At the end of the excavation it was decided to replace them and rebuild the retaining wall up to the floor-level of the interior. Photographs were taken to record the remnant of the wall and the mass of made-ground rising above it as they appeared before the reconstruction.

Of the west wall, the very foundations had for some distance been rooted up; fortunately the mass of clay with which the outer face was puddled remains as a record of its position and thickness. At the north-west angle, where the ground outside is considerably above the floor-level, the west and north walls are standing ten courses high. They are two feet thick, built in rudely coursed rubble-work. The remainder of the north wall, which was more visible, is built of large headers in regular courses.

Of the east wall there remains only the foundation course, and of the main entrance only some pavement, including one slab with a pivot-hole. It may be assumed that the gateway was arched, as at BREMENIUM, where arch-stones were found lying in the entrance. The disappearance of the principal façade of the most important building in the camp is a serious misfortune, since here if anywhere we might expect some sculptured ornament to relieve the utilitarian monotony of the surrounding architecture. It can hardly be a coincidence that here was found the most important of the few pieces of sculpture that have come to light within the camp. This is a large relief, five feet high by three feet broad, representing Mars armed with shield and spear, which was found in fragments some forty years ago during Mr. Clayton's excavations, 'at the south-west angle' of block xv, 'very near the point where the streets dividing the station, laterally and transversely, cross each other,' in other words, a few yards north-east of the principal entrance of the Praetorium.<sup>14</sup> It may, therefore, have fallen from the wall to the north of the gateway, and a corresponding figure, probably a Victory, may have adorned the wall to the south.<sup>15</sup>

<sup>14</sup> Bruce, *Roman Wall*, (3 ed.), p. 186, and full-page illustration. *Lapid. Sept.*, p. 238, where it is stated 'search has been made for the missing fragments.' In all probability this excavation extended to the east end of the Praetorium, where we found no depth of soil and few loose stones.

<sup>15</sup> It is tempting to suppose that we have this second figure in the relief of Victory, 'found inside the eastern gate of BORCOVICUS by the late Mr. Clayton's excavators in 1852.' Bruce, *Handbook*, p. 113. The other Victory from House-



The Praetorium measures externally eighty-nine feet six inches by seventy-six feet four inches, and is therefore much smaller than the corresponding building, the 'forum,' at CILURNUM, which measures about one hundred and twenty-five feet by eighty-five feet. The plan is much the same, an outer and an inner court leading to a row of five chambers.

#### THE INTERIOR.

*The Outer Court.*—An arched main-entrance opened from the broad space formed by the meeting of main streets into an outer court (4), bordered on three sides by a portico (1, 2, 3), and on the fourth by a plain wall, through which an archway opposite to the entrance led into the central bay of an inner portico. Opposite to this gateway, beyond the narrow inner court, rose the arched entrance of the *sacellum*, which in these frontier-camps served at once as the official chapel and the treasury of the regiment. This vista of arches, terminating in the shrine, must have been an impressive architectural feature as seen from the outer street.

The portico, nine feet six inches deep, was supported by stone columns with moulded bases. The return of the colonnade at the angles was formed by L-shaped piers, built up of large blocks of light-coloured freestone, one of which measures thirty-eight inches by twenty inches by thirteen inches. The roof must have sloped inwards and was composed of stone slates, which were frequent among the débris. A flagged footway, two feet six inches wide and raised five inches above the pavement, ran round the court sheltered by projecting eaves and made it possible to pass dry-shod in front of the pillars. The depth of the covered passage, portico plus footway, was twelve feet, while the open area measured forty-eight feet by twenty-four feet, and was therefore only half the size

steads, now in the Blackgate (*Catalogue*, p. 138; *Handbook*, p. 157), which Gordon quaintly describes as 'attired with a flying loose Drapery, standing upon a *Mound* or *Globe*, executed with a very Gentile Taste in *alto-relievo*, cut out of a hard free Stone, about 4 Foot 7 Inches in Length, and standing within a hollow Nitch,' came from the valley south-east of the camp. Fragments of similar figures have been found at Birrens and Stanwix. There are abundant parallels for the association of Mars and Victory. On two inscribed slabs from HABITANCUM these deities stand to right and left like heraldic supporters. Joint dedications to them occur at Ribchester (*C.I.L.* 220) and Birrens (*C.I.L.* 1068), as well as at Housesteads.





of the outer court at CILURNUM, which is fifty feet square. Below the flagged footway the outer court (4) was bordered by a strip of similar flagging three feet nine inches wide, provided with a shallow channel, which received the rain-water from the eaves and carried it to an underground drain in the south-east corner. The square pit (*g*) from which this drain starts may once have been protected by a pierced drain-cover or sink, now in the Blackgate, which is known to have been found at House-

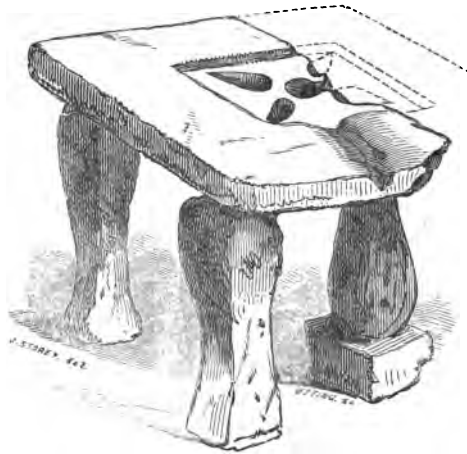


FIG. 6.—PIERCED DRAIN-COVER.\*

steads and closely resembles the adjacent flagging. It will be seen from the plan that the greater part of the flagging has been removed, probably many years ago, for among the remains of the seventeenth-century farmhouse (block VI) we were able to identify a slab from this court. Fortunately the well-preserved strip in the north-west corner enables us to reconstruct the plan of the whole. There are indications that the internal area, within the border of flags, was originally laid with two-foot squares of sandstone, but little thicker than stone slates. These were frequently broken, and latterly the pavement became a mere patchwork.

Of the column-bases in the outer court, *a* is the best; *f* is much injured; both, like the bases in the inner court, have square plinth, torus-mouldings, and lower part of shaft formed out of a single block; *b*, *c*, are plinths on which a circular base rested; *d* is missing altogether, but its position has now been indicated by placing there a base, similar to those of this building, which lay on the surface of block XII, and may have rolled down from the Praetorium. It is

\* The hypocaust pillars shewn above have nothing whatever to do with the sink-slab they support.

figured in Bruce's *Roman Wall*, p. 193. No column or capital was found that at all agreed in diameter with these bases.<sup>16</sup>

Open colonnades were ill-suited to those bleak and wind-swept heights, and it is not surprising that after a time the spaces between the columns were walled up and the porticoes turned into rooms. Of these 1 and 2 yielded nothing of interest. The pavement of the latter had mostly perished, that of the former was partly flagging, partly the natural rock which rises to the surface throughout the northern half of the Praetorium. Room 3 was more fruitful. Its original floor had been of clay, laid on the roughly levelled rock. Above it was a later floor of flags, with a large hearth-stone at the east end. The higher level yielded a silver brooch of late-Celtic openwork, a pair of bronze tweezers, and a bronze lid with sunk vine-pattern. A broken column-shaft lay against the west wall as if to serve as a seat.

*The Inner Court.*—The bay, about twelve feet wide and twelve feet long, which



FIG 7.—KEYSTONE FOUND AT SOUTH SHIELDS

<sup>16</sup> Stukeley may have seen some. 'As for fragments of pillars, or rollers, as they call them, they lie scattered all over the place. A large part of a Doric capital lies by the door' of the farm-house, 'consisting of two *thori*, or swelled mouldings, in architectonic language.' The base *a* was partly visible before we began work, and may have suggested Horsley's remark: 'I think the Praetorium is visible, and the ruins of a temple near it.' According to the notions of those days Horsley would look for the Praetorium in the highest part of the camp, where the two granaries (block VIII) form a conspicuous mound, and would take the building with pillars, the real Praetorium, for a temple. Hodgson refers to it as 'a square mass of ruins' which 'seems to have had pillars round it internally, like the cloisters of a monastery.' *History*, p. 187. He describes it as near the north-west corner of the north-east division or quarter of the station. Read south-west for north-west.

led into the inner court, seems to have been spanned by an arch at either end; near the corresponding archway at South Shields was found a keystone sculptured with a bull's head (fig. 7). The inner arch sprang from piers of which the splayed bases remain. Very similar pier-bases were found in the line of the colonnade at the main entrance to the Praetorium at BREMENIUM. The opening between the courts was furnished with doors which closed against a raised sill, much worn by traffic. The pivot-holes and the tracks for introducing the pivot are shown on the plan. The passage is roughly paved, and a still rougher pavement of very miscellaneous material, including the coved top of a grave-stone, extends across the inner court to the Sacellum. The remainder of the inner portico and court had no regular pavement. Their original floor, composed of fine red clay well rammed down, was renewed from time to time until successive layers completely covered, and did much to preserve, the bases of the two southernmost columns.

All four column-bases in this court, like two of those in the outer court, have plinth, *tori*, and part of the shaft formed out of a single block. The disregard for rule and symmetry shown in the irregular levels, unequal spacing and dissimilar forms of these bases was one of the reasons which early in the excavation suggested to Mr. Dickie that the construction of the building had been interrupted and afterwards completed by inferior workmen. He has developed this view more fully elsewhere. The frontispiece shows the present condition of this colonnade, and should be compared with fig. 8, in which Mr. Dickie has recorded our idea of its original appearance.<sup>17</sup>

The intervals between these columns were never blocked up, but walls were built at either side of the passage between the two courts. In the sheltered angle thus formed on the south side a fireplace was constructed, which was probably in use up to the last occupation of the fort. An iron bar, perhaps part of a grate, lay

<sup>17</sup> The projection of the eaves is justified by the distance of the gutter in the outer court from the bases of the columns. The still greater projection of the roof over the central passage is suggested by the fact that at CILURNUM the channelling which runs round the square centre court, returns outward at the gateway leading to the inner court, showing that the roof at this point projected outwards in a kind of porch. It may be noted in passing that this channelling at CILURNUM is secondary work, being above the level of the pier-bases, and that an older pavement may be preserved below it.

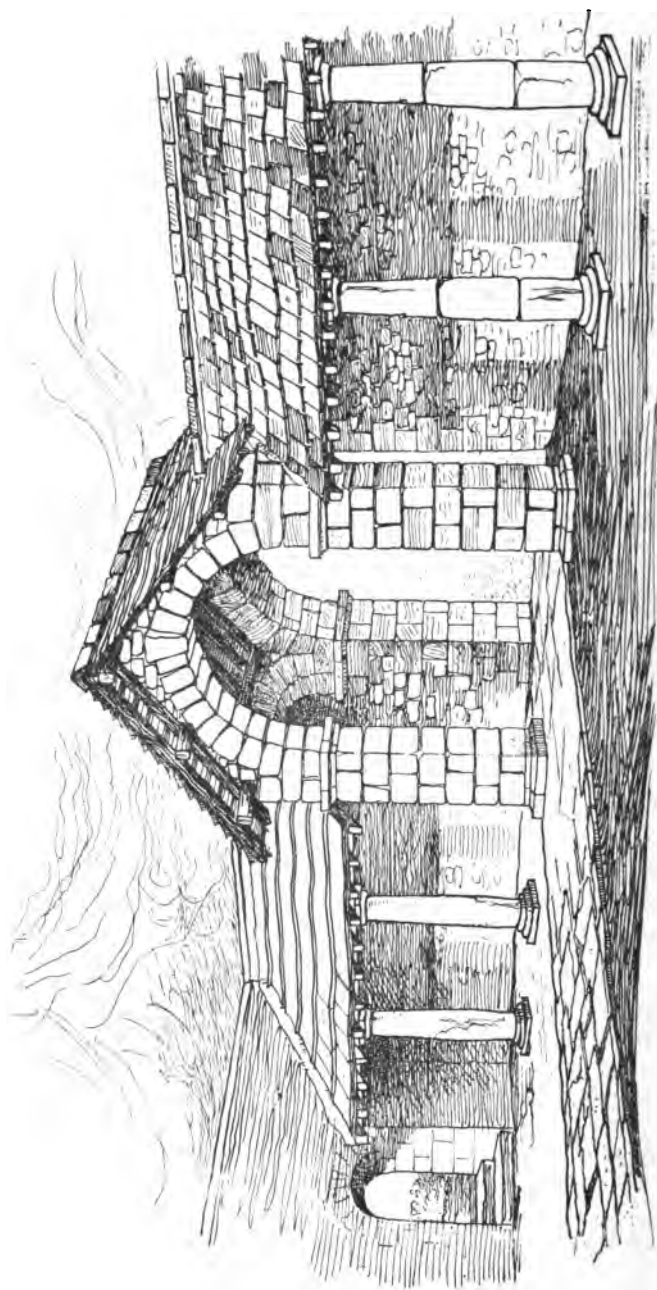


FIG. 8.—COLONNADE IN THE INNER COURT, RESTORED.

behind some fallen stones. Round about was a deep stratum of coal-cinders, bones and broken pottery. A pot which was reconstructed out of fragments found in this refuse-heap, can hardly, to judge from this circumstance, be of earlier date than the fourth century. On the other side of the passage the dividing-wall was doubled, it is impossible to say why, so as to narrow the gateway from twelve feet six inches to ten feet and prevent the opening of the northern half of the door.

In the Praetorium at CILURNUM, BREMENIUM, and BIRRENS there are side-entrances from the lateral streets into the inner court. At Housesteads a flight of steps leads down from the higher level of the road on the north, and possibly—though all trace of it has perished with the south wall—a similar flight led down from a corre-

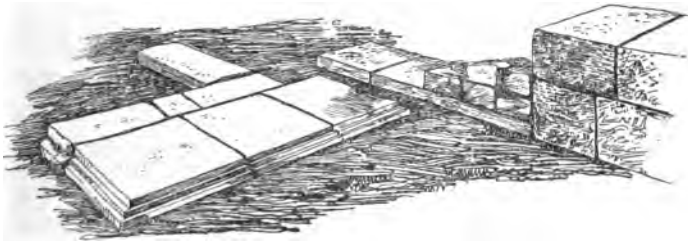


FIG. 9.—MOULDED PLINTH.

sponding side entrance to the lower level of the road on the south. The doorway on the north side is well preserved, and had been built up, perhaps in modern times. A pivot-hole in the threshold shows that it was provided with a door. Some flags and a piece of channelling were fitted together to form a doorstep on the outside. The western side entrance at CILURNUM is similarly provided with steps down from the street and gutter-stones on the outside, 'showing,' says Dr. Bruce, 'that the gateway has been roofed.'

The steps and the space to the west of them had so scanty a covering of turf that they must have been explored before, probably by Hodgson :—

I found on the spot a traditionary belief that there were subterraneous chambers near the middle of it; and employed some workmen to clear away the ruins and rubbish near the remains of a flight of steps, which were supposed to lead downwards. They, however, soon came to the face of the whin-stone rock.



. . . At the foot of these steps we found a heap of decayed mineral coals, and a quantity of such ashes and scoria as are produced in smitheries in which mineral coal is used. *Arch. Ael.* o.s. I. p. 266.

His reference to the kiln, 'a little to the east of the steps'—it is really a few yards to the north in block VIII—helps to determine the part of the camp referred to. The identification was confirmed by our finding a quantity of coal and some scoriae near the foot of the steps. The smith who made the arrows stored in room 12 may have had his temporary forge here.

The inner court, besides being less carefully paved was less thoroughly drained than the outer. A rock-cut drain, flagged over, takes a sweeping course from the steps on the north along the front of the portico to the west wall, the latter part of it being merely a V-shaped channel lined and covered with stone slates. It probably joined a large drain, covered with heavy flags, which starts from the south-west angle of the Praetorium and skirts the outside of block XII. A similar slate-built channel runs in front of room 11, and probably joined that just described.

In the south-west angle of this court stands a moulded plinth or basis (fig. 9, *l* on plan), six feet six inches long, three feet broad, six and a half inches high. It was originally longer, since the moulding at the west end is missing : there is room between the broken end and the adjoining wall for a further length of six inches or one foot. It may have supported a monumental inscription, as did somewhat similar bases found in the Praetorium of several frontier-forts in Germany.<sup>18</sup> Its west end is slightly worn by the tread of feet, which may indicate that the door of room 8 was still used for a time after it was placed here. The stones to the rear of the basis are a later addition. The moulding is continued on one of them, but in the rudest fashion.

A solid platform in the north-west angle, raised four feet above the ground with a surface originally measuring at least ten feet by eight feet, is less easily accounted for. It consists of large blocks of freestone, packed with gravel and chippings, and covered by massive flags, and is not bonded into the adjacent walls. Part of it was destroyed by the plunderers who tore away the jamb from the blocked-up doorway of room 12.

<sup>18</sup> *E.g.*, at the Saalburg, Butzbach, and Buch.

The chambers 8-12 which face the inner court have undergone so many alterations in ancient times and been so much plundered in our own day that it is not easy to unravel their history. It is clear that they were originally five in number, arranged like the corresponding chambers at Birrens. Four of them (8-11) had broad

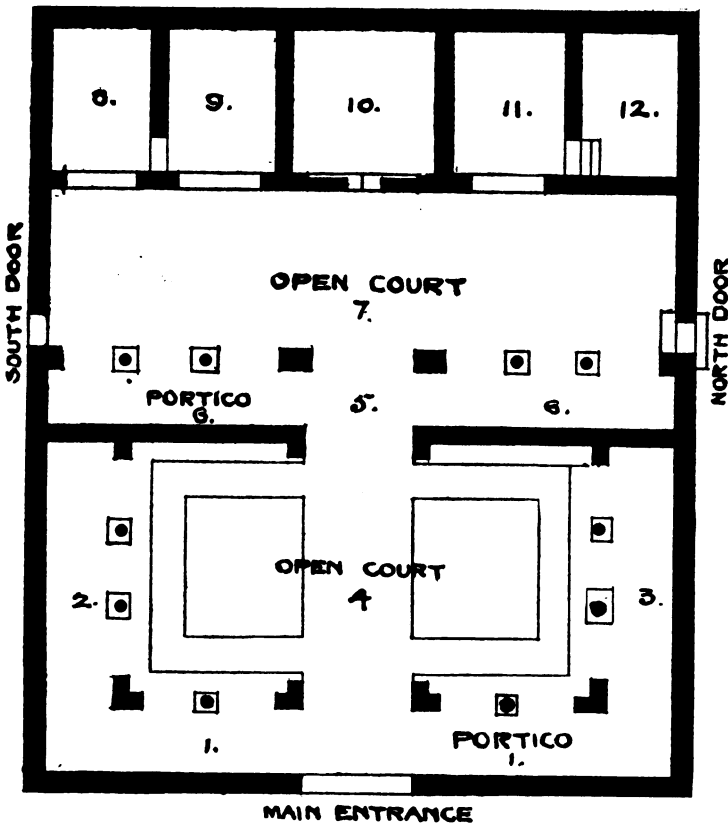


FIG. 10.—ORIGINAL PLAN OF THE PRAETORIUM AT HOUSESTRADES, RECONSTRUCTED.

doorways, divided by T-walls of large ashlar, opening on the court, while the corner-chamber on the right (12) was entered from 11. The original design freed from later modifications is shown in fig. 10.

The central chamber or Sacellum, sixteen feet square, communicated with the court by a doorway twelve feet six inches wide, which, as at

CILURNUM, was perhaps spanned by an arch. The pier is two feet thick, and a voussoir measuring one foot eleven inches was found in the area before it. The sill is composed of two blocks respectively six feet and six feet six inches long, two feet broad and four and three-quarter inches thick, and exhibits at either end a shallow sinking four feet long and seven and a half inches broad (*m, m*), which may be explained as intended to receive the base of a low stone screen or balustrade. The pier on the north is cut to receive the end of the screen; that on the south, with the greater part of the T-wall between rooms 9 and 10, has disappeared. The part of the sill in front of the screen was moulded (fig. 11, *cf.* plate XVI). No part of the screen was found, but some idea of its character may be got from a

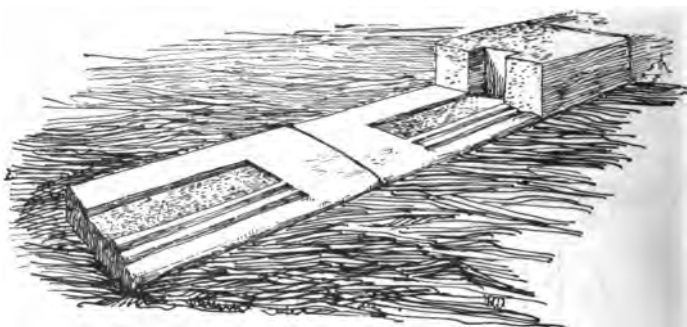


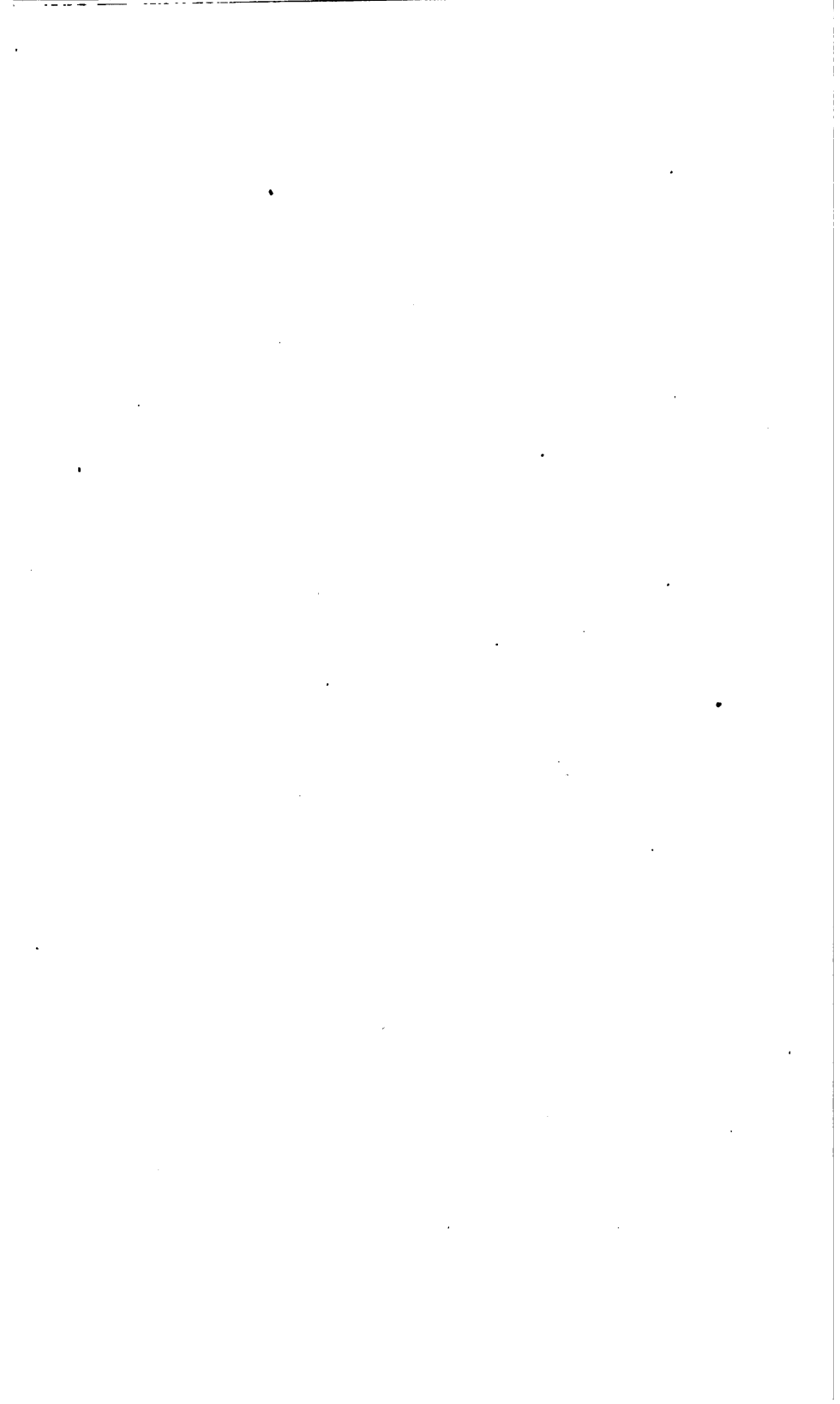
FIG. 11.—MOULDED SILL WITH SINKINGS FOR PARAPET.

moulded coping which was found in the corresponding chamber at Birrens, and was interpreted as the coping of a balustrade by Mr. Barbour, who surveyed the excavations there. Upon seeing the sill just described, during a visit which he paid to our excavations, Mr. Barbour was able to account both for the socket at Housesteads and for the coping at Birrens. There are indications of a low screen-wall or parapet with splayed cope at either side of the corresponding doorway at CILURNUM.

The walls of the Sacellum had been systematically demolished. The fact that even the foundations were found worth removing indicates that they were composed throughout of fine large blocks like the few which remain in place. The floor is of walling-stones



HOUSEHEADS. CENTRAL CHAMBER OF PRAETORIUM FROM THE EAST.



roughly fitted together and levelled over with clay. Under this are the disintegrated remains of an earlier floor of *opus signinum* (a cement of broken tile and lime) immediately overlying the rock. Search was made for the strong-room, which is commonly found in the floor of this chamber, but without success. The solid whin was found to extend across its length and breadth, with the exception that along the south-side a foundation had been cut for a wall of large ashlar, running nearly parallel to the south wall and about one foot to the north of it. A part of the foundation course is *in situ*, and the rock-cut bed of the remainder was traced up to the west end. This wall may represent an earlier Sacellum on the same site, or it may have been a dwarf-wall or bench for the reception of a row of altars. The whole area had been ransacked. A *denarius* of Caracalla lay among the stones and clay of the later floor. Among the débris, perhaps thrown in by recent plunderers to fill the hole formed by the demolition of the walls, was a short column with a sinking for an iron cross-bar, which may have formed part of a window.

The rooms 9 and 11 measured sixteen feet by twelve feet six inches, the narrower corner-rooms 8 and 12 measuring sixteen feet by twelve feet. There is proof of an original division between 8 and 9 in the wall *n* four feet nine inches long, built of fine large ashlar still standing three courses high. It ends in a straight joint both to north and south and can be nothing else than the cross-piece of a T wall, the stem of which is now destroyed. For some reason it was found convenient to do away with the division between the rooms, and the door of 8 was built up with small stones.

The original floor of 8 and 9 was of whin and freestone chippings covered with clay. Successive renewals so raised the floor-level, that a clean-cut section shows at least three successive beds of clay, each burned and discoloured towards the top and largely intermixed with coal-cinders.

It is hard to say at what stage in the camp's history the entrance to room 9 was remodelled. A slab seven feet long, which had previously served as a cornice, was now laid down to form a threshold, the original threshold being removed, and the doorway, originally eight feet six inches wide, was contracted to five feet, a wall three feet six inches long being built on the south end of the new

threshold. A drain, cut through the top of the slab, passes under the new wall. The relations of the old wall of large masonry and the new wall built on the later threshold are shown in fig. below. For the cornice-moulding on the lower side of the threshold, which is ten inches thick, see fig. 12.

The wall, *p*, which cuts off a strip four feet wide from this room (8 and 9), may indicate either a passage leading to a door in the south wall, or—since evidence of the existence of an upper storey was found in rooms 11 and 12—a staircase leading to first-floor rooms. It is founded upon the clay floor and must be of late date. Contemporary with it was a pavement of thin fire-reddened sandstone, in the middle of which was a hearth, measuring two feet four and a half inches by one foot eleven inches, formed out of the half of a moulded slab with sunk panel. It may once have borne an inscription, but no trace of lettering survives. An oyster shell and a quantity of bones occurred at the highest level.

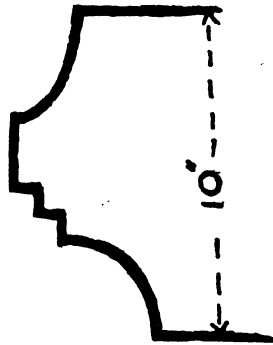


FIG. 12.—MOULDING ON THRESHOLD OF ROOM 9.

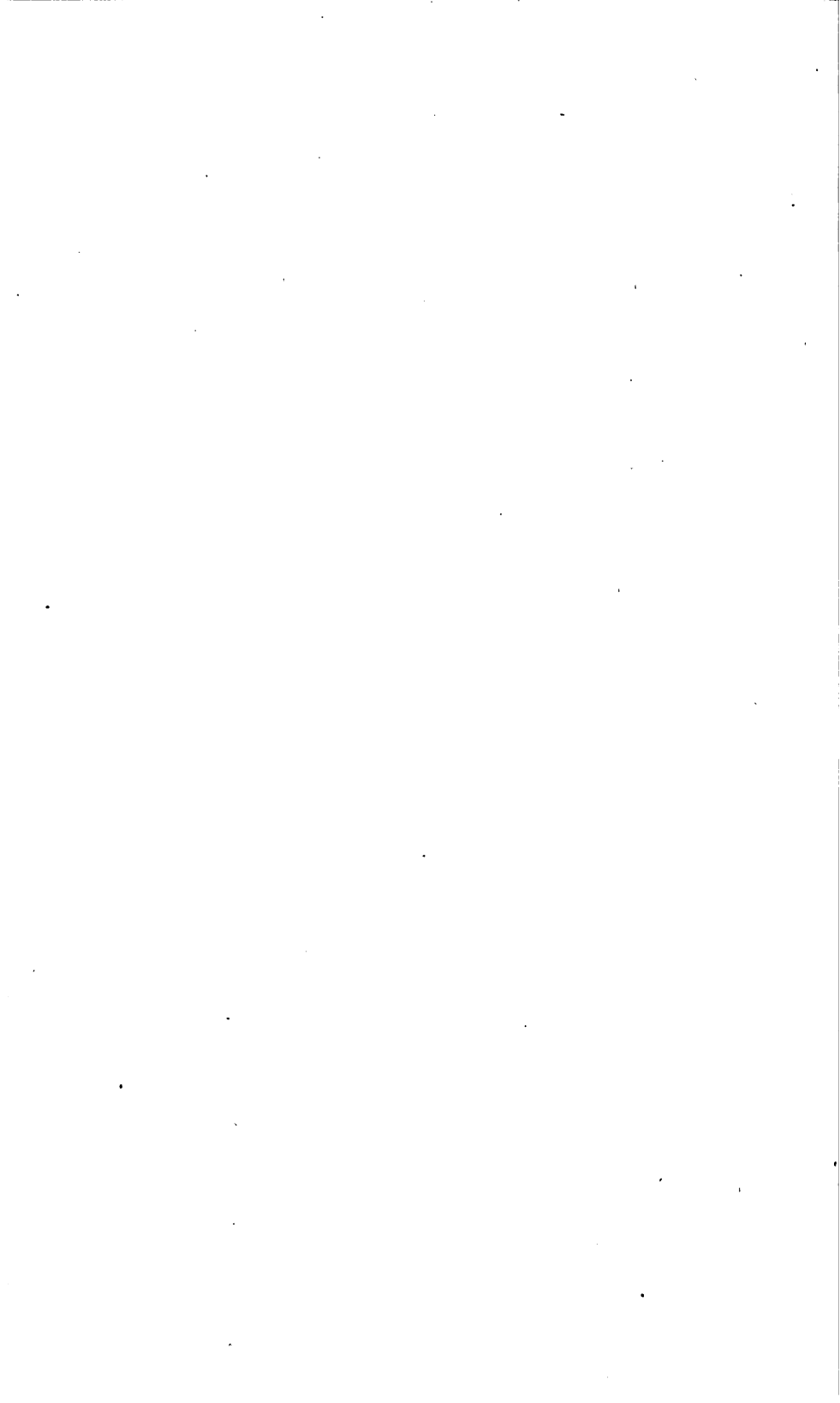
The doorway of room 11, like that of 9, was originally eight feet six inches wide, was then contracted, and finally built up. The threshold, consisting of two long slabs, is still in place, and so far as can be seen is but little worn. It is not certain whether the longer or the shorter of the two sections of wall *r* and *s*, respectively six feet and two feet six inches long, was the earlier. The analogy of the door into room 9 suggests that *s* was the earlier, and that the door was first narrowed to six feet and afterwards closed altogether. The puzzle is complicated by the fact that whilst these two sections of 'blocking-up' survive, with a straight joint between them, the jamb of the original wall at *t* has been torn away in recent times, for the sake of the large blocks of which it was composed. This should be remembered when the remains are examined upon the spot, for at first sight the gap thus formed resembles a doorway.<sup>19</sup>

<sup>19</sup> At the time of our excavation the trench cut by the stone-hunters alongside the wall *r. s.*, was quite recognizable. It was filled with fragments of the platform, a part of which they had hacked to pieces in order to extract the finely-squared masonry of the jamb.



HOUNSTEADS. CENTRAL CHAMBER OF THE PRAETORIUM FROM THE SOUTH.





What was gained by thus closing up the entrance from the court? The effect was to make rooms 11 and 12 inaccessible except through the Sacellum. The object of the change was doubtless to provide a strong-room for the custody of money and documents which would in some degree share the inviolable sanctity of the central shrine. At South Shields and at BREMENIUM this need was foreseen at the original construction of the Sacellum, and a vaulted cellar or basement was provided under its floor. At CILURNUM a similar vaulted cellar was constructed at some later date under the floor of the room adjoining the Sacellum, and was entered by steps from the latter. At Housesteads, where the solid basalt floor would have made the construction of an underground chamber difficult, the need was met by cutting off room 11 (and consequently also room 12) from the court and connecting it by a door with the Sacellum.<sup>20</sup> As to the date of these structural changes we can only conjecture. The Praetorium at BREMENIUM was built, according to an inscription found near its main entrance, under Antoninus Pius, and that of South Shields cannot be much later. On the German *Limes* an underground strong-room was often provided in camps built towards the end of the second century, and such a room is found at Birrens, which was abandoned about that period. Further, 'on the floor' of the vault at CILURNUM 'were found a number of base *denarii*, chiefly of the reign of Severus.' We may conclude that about the beginning of the third century measures were taken to provide a strong-room in such camps as were originally constructed without one.<sup>21</sup>

The wall dividing 11 from 12 is very rough rubble-work, and is pierced by two doorways. The earlier door, like that between the corresponding chambers at CILURNUM and Birrens, adjoined the entrance from the court into 11. The rock, which here rises to the surface, was not quarried away, but the floor of 12, originally of *opus signinum*, was laid at a level eighteen inches above that of 11, and

<sup>20</sup> This is conjecture. Part of the wall between 10 and 11 is destroyed, so that we cannot say with certainty whether or no there was ever a doorway in it.

<sup>21</sup> This applies also to the vault at AESICA. Its small size and inferior masonry show that it was a later insertion, like the vault at CILURNUM, which it so closely resembles. At South Shields and BREMENIUM, as at Murrhardt in Germany, the strong-room is a basement of almost the same area as the shrine over it. That at Butzbach, sunk in the floor of the Sacellum, is an insertion of the third century—*O. R. L. Butzbach*, 9.

was reached by three steps. Later, a second door was broken through the west end of the same wall, steps being placed outside it in 11, and in all probability the earlier door was walled up. A hearth-stone of irregular shape is set in the middle of the floor, and there are marks of fire against the north wall. To conceal their poor construction the walls were originally plastered.

Rooms 11 and 12 were filled by a high mound which had remained undisturbed not only when parts of the surrounding walls were removed in recent times, but ever since the Praetorium fell into ruin. This mound contained more than the usual quantity of building stones, the usual admixture of broken slates, and one unusual element—a quantity of fallen flue-tiles of the form shown in fig. 13. The evidence points to the existence of an upper storey.

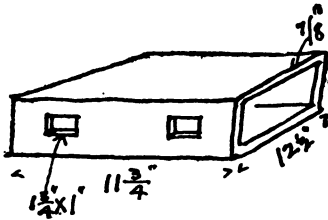


FIG. 13.—FLUE-TILE FOUND IN PRAETORIUM.

The flue tiles in room 12 extended in a line from east to west, starting from a point near the north-east angle; those in room 11 were more scattered, but all lay in the northern half and most in the

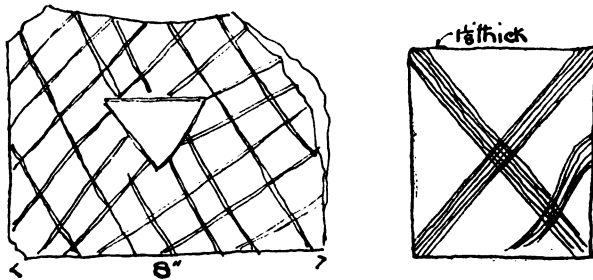


FIG. 14.—BACKS OF FLUE-TILES.

north-east quarter of the room. Round them was the clay in which they had been bedded and soot shaken from them by their fall. They were black with smoke inside, and there can be no doubt that they had formed heating-flues in the east wall of a room forming an upper storey above 11 and 12. The furnace must have been placed on the solid platform outside 12. We can only conjecture that the

missing southern part of it, which has been demolished for the sake of the large stones of which it was built, included a flight of steps and so supplied an access to the upper floor. I have already referred to the coal and scoriae found in this corner of the court.<sup>22</sup> The flags composing the top of the platform show marks of fire.

There is no parallel elsewhere, so far as I know, for an upper storey in the inner court of the praetorium,<sup>23</sup> and at Housesteads it formed no part of the original scheme. The angle-chamber happened to be sunk about four feet below the adjacent ground-level on the north and west, and it was easy to wall it off and convert it into something corresponding to the underground strong-rooms of other forts; then the space thus sacrificed was recovered by the construction of a room or rooms above it, and the exposed eastern wall was rendered impregnable by the construction outside it of a massive platform which at once increased the security of the strong-room and provided the means of approaching and heating the upper storey. It must be remembered that the five chambers, which are a uniform feature in the Praetorium of so many forts, must have had their separate functions, and that if one of them was adapted to some other use another would have to be provided in its stead. There is abundant evidence that in one or more of these chambers was situated the *tabularium* or office of the regimental book-keepers.<sup>24</sup> In the climate of Northumberland such an office would require heating in winter; accordingly when we

<sup>22</sup> To the question why the flue-tiles may not have warmed the ground-floor rooms, the answer is that there is no trace of attachment for them on the walls, and no suitable place for the furnace.

<sup>23</sup> Herr Jacobi's restoration of the Saalburg is not supported by sufficient evidence.

<sup>24</sup> Brambach 695, dedication *genio tabularii* by a *librarius* found at Niederbieber in a room corresponding to our room 12. A small room opening from it contained remains of cupboards and locks, 'eine Menge zn Schränken, Kisten, und Kasten gehörendes Eisenwerk,' (Dorow, *Röm. Alterthümer in und um Neuwied am Rhein*, Berlin, 1826). A recent re-excavation of this praetorium has shown that the three rooms r. and l. of the Sacellum had hypocausts (*Limesblatt*, p. 825). This exceptionally large camp (about 850 × 650 feet), on the extreme north-western flank of the frontier beyond the Rhine, was held in the third century by two corps, a *numerus Brittonum* and another of *Divitienses*; hence no doubt some of the offices were duplicated, which accounts for the unusual number, three instead of two at either side of the Sacellum. For other evidence that the *tabularium* of Limes-camps was in the inner court, see Hettner, *Westdeutsche Zeitschrift*, vol. xvii. p. 346.

In the legionary camp at Lambaesis, the *tabularium* has been found in the angle of the inner court, and there too it has an archive-room opening from it in which were found the substructures of large safes or presses (Besnier, *Mélanges d'Arch. et d'Hist.*, vol. xix. pp. 199-258).

find a hypocaust in the room adjoining the Sacellum at BREMENIUM, and a cruciform heating-flue underlying the right-hand angle-chamber at South Shields, we may reasonably infer that these were the rooms in which the *librarii* wrote.

Below the flue-tiles was a *stratum* of fallen slates, lying so flat that at first they were taken for a secondary floor-level; as the excavation proceeded it became evident that they represented the fall of a part of the roof. Immediately below them, in the last foot of rubbish above the original floor, iron arrowheads began to come to light, some of them adhering to the underside of the slates; further west, where there were no slates, one was found adhering to a flue-

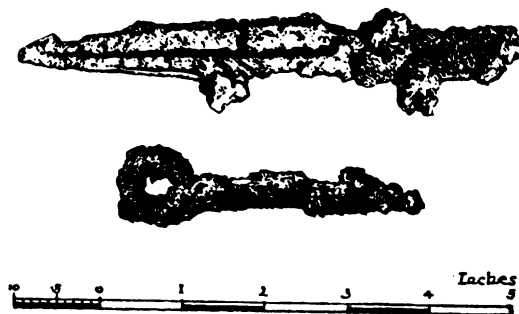


FIG. 15.—IRON COMPASSES AND STAPLE, FOUND IN ROOM 12.

tile. They were found in all parts of the room and at various levels, but lay thickest about six inches from the floor over an area measuring about four feet north and south and three feet east and west, in the middle of the room, nearer to the east than to the west wall. Mixed with them were many nails and other scraps of iron. As much as thirty inches above the floor-level and close to the north wall there was found a rusty lump as big as a man's fist, which proved after careful cleaning to be a mass of nails attached to a large hook; they retained the shape of the bag or wrapping in which they had been hung up. There was also a large mass of iron, possibly an anvil, a pair of compasses (fig. 15), a bone button, a fragment of yellow and red wall-plaster, two ribs of a pig, and a piece of window-glass. The only coins found were an illegible first brass (floor-level of 12), and a coin of Constantius (filling of 11). The position of these

arrowheads was carefully noted ; though they lay in considerable confusion, there was some reason to think that they might originally have been arranged in bundles. The shafts had rotted, with the exception of the inch or so of wood that was in contact with the tang and was preserved by a deposit of oxide. More than 800 were counted. Fig. 16 shows typical specimens and illustrates their variety of size and form. All seem to have been hammered ; we may conjecture that the nails and scraps of iron found with them were

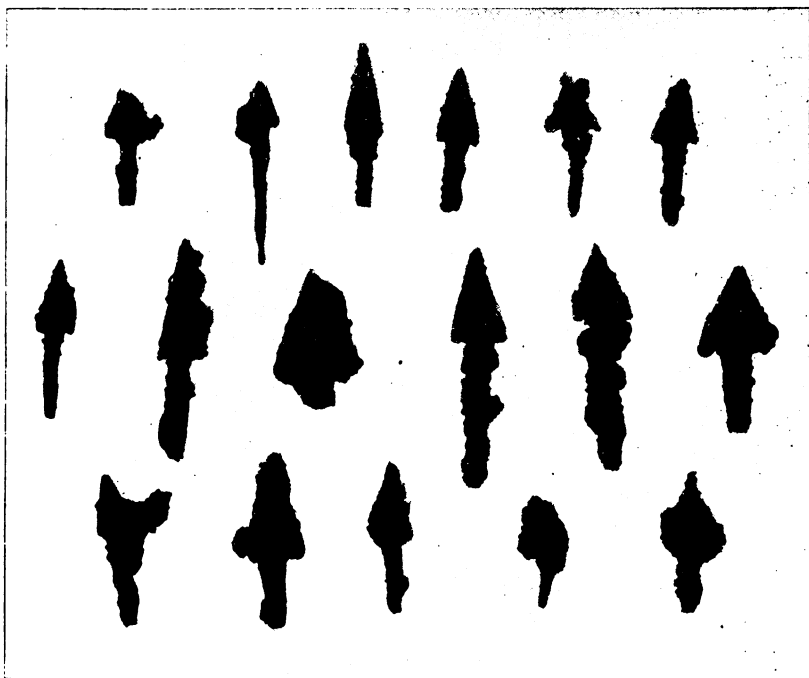


FIG. 16.—ARROWHEADS FOUND IN ROOM 12.

brought there to be converted into similar arrowheads. The presence of the anvil seems to show that the angle-room was in use as a workshop, not merely as a magazine, in the period immediately preceding the destruction of the fort ; but this circumstance proves nothing as to its original destination, and it would be rash to identify it with the *Armamentarium*, or store of arms and equipment, known to have existed elsewhere.

*The Praetorium: its Name and its Use.*—As considerable progress has recently been made in the comparative anatomy of Roman camps, it may be convenient to append to the description of the praetorium at Housesteads a brief account of common features of such buildings elsewhere.

The first advance towards a sound knowledge of the arrangement of Roman camps was made in 1852, when the excavations of the duke of Northumberland, at BREMENIUM (High Rochester) in Redesdale, brought to light in the centre of the camp a building surrounded on four sides by streets, and divided into an inner and outer court, which Dr. Bruce identified as the praetorium.

In 1870, Mr. Clayton's excavations at CILURNUM revealed a far better preserved building of the same type; but, as the name 'praetorium' had been given, in 1843, to another block of buildings in the same camp, it was found convenient to call the new block the 'forum'; the name was recommended by the general resemblance it presented to the forum at Silchester, then recently excavated. The resemblance is more than accidental. So far as military can be compared with civil organization, the central building, which archaeologists have agreed to call the praetorium, was the forum of the camp, not so much in the sense of a market-place as of an administrative centre. So far as classical usage goes, we do not know that the name praetorium was ever applied to any building in such camps as those on the Roman Wall; and if it had been, it is perhaps more likely to have been used in the sense of commandant's quarters than in the sense of central offices. However, it has become the practice, on the continent as well as in England, to apply the name praetorium to the central building; and the name is a convenient one, because it records the development of this headquarters building out of the praetorium described by Polybius, Hyginus, and Josephus. It was the general's tent, and in the camp of a field force described by Hyginus occupied the corresponding position, facing along the Via Praetoria towards the Praetorian Gate. In like manner it is convenient to use the name *sacellum* for the central chamber of the inner court of the praetorium, although there is no ancient authority for it.

How far are we justified in applying to the permanent camps of auxiliary cohorts terms which had a fixed value for field camps?

When we remember that castrametation was a regular science, that such forts were often built by detachments from legions, and that in the main lines of their plan the permanent camps of cohort and legion show a very close correspondence, it is not difficult to believe that their gates, roads, and such other features as they had in common, were named alike: just as, in spite of the widest differences in scale and organization, the same names are applied to parts of a metropolitan cathedral and a village church. There is sufficient resemblance of plan to show that Hyginus, in describing the camp of his imaginary field force, was bound by the same general rules as the designers of Neuss and of Housesteads.<sup>25</sup>

We now come to the use of the five or more chambers which are so constant a feature of the inner court. Briefly, the result of recent research is to show that the middle chamber was a sanctuary, in which honours were paid to the standards which were exhibited within it, to the Genius of the regiment, and to the Imperial House; and that the chambers at either side were offices, corresponding to our orderly-rooms, for the transaction of regimental business. The discipline and *esprit de corps* of the Roman army were closely bound up with the worship of the standards, and the worship of the standards with the worship of the emperor.

At Housesteads the so-called sacellum or shrine of the standards is open across its whole breadth to the east. A part of this archway was closed by a low parapet to right and left, leaving an entrance in the centre. There is no sign of any door. Fig. 17 (p. 300), shows what we may suppose to have been its appearance. In many of the German camps the importance of this chamber is emphasized by the addition of an apse at the back. In certain camps, especially at BREMENIUM and South Shields, its foundations are of stronger masonry than those of the surrounding rooms; and where this is so there is found under the sacellum a cellar or strong room. The standards themselves— not flags like our modern 'colours' but glittering clusters of emblems,

<sup>25</sup> In time inscriptions may come to our aid. One found in the cohort camp of Kutlovica, in Roumania, records the building of a *porta praetoria*. The mention of a *platea quintana* and a *platea praetoria* at Novus Vicus (Heddernheim) suggests that the military nomenclature was to some extent applied to the divisions of towns which grew up under military influences. It would not be surprising if the forum at Heddernheim were found, like that at Silchester, to bear a definite resemblance to the central building of a legionary fort.



often of precious metals, affixed to a pole—had an intrinsic as well as a sentimental value. There is mention in an inscription of a guard-house for men who watched them at night ; and it is likely that the need of a place in which they could be kept locked up first led to the creation of a strong room. Then, by a process which would take too long to trace, the standard-bearer, the officer chosen for his integrity to take charge of the precious *signa*, became the banker of the regiment ; and, under the empire, we find him in charge of a sort of compulsory savings bank, in which the rank and file were compelled to deposit a certain proportion of their pay. Although the buildings remain, the worship of the standards and of the Imperial House have left few traces in the forts along the wall, the reason being apparently that they continued to be garrisoned in the fourth century, when the traditional religion of the army had been extinguished, though perhaps not replaced, by Christianity. To find evidence of it, we must go to forts which were destroyed or abandoned when this worship still flourished.

#### BUILDINGS WITHIN THE CAMP.

*The Barracks.*—The excavations at BREMENIUM, which threw so clear a light on the destination of the central chamber in the inner court of the praetorium—the shrine of the standards with its subterranean strong room—yielded no satisfactory evidence about the quarters allotted to the troops. There, as at South Shields and AESICA, only a part of the camp has been examined, and the incomplete plan exhibits an appearance of irregularity which would to some extent disappear if the whole area were explored, and the original constructions distinguished from the later.

The fort of BORCOVICIUM was garrisoned, we have reason to believe, from first to last by one and the same corps, the first cohort of Tungrians. This regiment was one of those entitled *milliaria*, that is to say, it was nominally one thousand strong and consisted of ten companies or *centuriae* ; but unlike the second cohort of Tungrians, which served at Birrens and at Castlesteads, it was not *equitata*, that is to say it did not include a proportion of horsemen.

No ancient author tells us how the permanent barracks of legion,

or cohort, or century, were arranged, but we know that on active service a definite space in camp was allotted to each legion, to each of the ten cohorts in the legion, to each of the six centuries in the cohort, and to each of the ten tents allotted to the century, and, though Hyginus does not mention it, to each of the eight *contubernales* or occupants of a common tent.

The camping ground of an auxiliary cohort was planned (due allowance being made in the case of a milliary cohort for the increased number of centuries) exactly like that of one of the cohorts of the legion. That is to say, the centuries were grouped two and two, the tents of each company pitched in line, and the two lines placed parallel and divided from one another by a road twelve feet wide. Behind each row of tents a strip five feet wide was occupied by arms and baggage, and behind that, on a strip nine feet wide, the horses and baggage animals of the company were picketed. The rectangle occupied by two centuries encamped in this manner was 120 feet long by 60 feet wide, and was technically known as *striga*, an obscure term borrowed from the nomenclature of that most pedantic corporation the *gromatici* or land surveyors. The system which treats two centuries as the unit takes us back to the armies of the Roman republic, in which each cohort was divided into three *maniples* of two hundred men, and carried its own standard. Under the early empire the maniple disappears, and we find each century a complete unit carrying its own standard and furnished with a graded hierarchy of petty officers.

Hyginus, writing in the second century of our era, still assumes the pairing of two centuries into *strigae* as the most convenient formation for the tents of his imaginary field force, but he explains that the *striga* could be divided into two *hemi-strigia*, each 120 feet by 30 feet. This allowed nine feet for horses as before, five feet for baggage and arms, ten feet for tents, and six feet for a road before the tent doors. The centurion occupied a tent to himself at the end of the row, and it is probable that a second tent was allotted to the *principales* or petty officers of the company: *signifer* or standard-bearer, *optio*, *tesserarius*, and *custos armorum*.

Just as in legionary and cohortal camps alike the general plan of the permanent stone camps can be shown to have originated in that

of the camps thrown up night after night in the field, so the traditional 'lines' of the paired centuries were reproduced in the stone-built barracks of first and even second century forts.

Here, as usual, it will be best to look first at a typical legionary camp. The best for our purpose is *NOVAESIUM* (Neuss), a camp which has a special interest for us, because the sixth legion lay there from the time of the rebuilding of the fort under Vespasian until Hadrian moved it to York. The normal barrack block at Neuss measures 240 feet by 80 feet, and consists of two long buildings face to face, separated by a road 16 feet wide. Each building is in two parts. At the end nearest the rampart was a wing 80 feet long divided into numerous rooms, in some of which we are inclined to recognize common kitchens and mess rooms. The remainder—a strip 165 feet long—is divided into twelve exactly similar compartments, each consisting of a front and a back room. Their front wall is considerably behind that of the 'mess-house wing,' leaving room for a verandah nine and a half feet wide.

The camp at Neuss has not yet been completely excavated, but already some dozens of such blocks have come to light, and there can be no doubt that they correspond with the *strigae* and *hemi-strigia* of Hyginus. In the permanent camp the length and breadth of the *hemistrigium* is about doubled, but the proportions remain approximately the same. An inscription found in the camp of the twentieth legion at Caerleon makes it highly probable that these buildings were known as *centuriae*.<sup>26</sup>

It is a peculiarity of Housesteads and a consequence of the elongated form of camp, which in turn was determined by its position on a narrow ridge, that the buildings in the *praetentura* and *retentura* lie parallel to the longer axis of the fort and not, as is usually the case, at right angles.<sup>27</sup> There are twelve of these long buildings, I-VI and XIII-XVIII, a group of three in each angle of the camp; and of these two are always placed back to back, separated by a passage only four or five feet wide, while the third is divided from

<sup>26</sup> It is *C.I.L.* VII. 107, and records that about 253 A.D. the emperors Valerianus and Gallienus rebuilt the company barracks of the seventh cohort, *cohorti vii. centurias a solo restituerunt*.

<sup>27</sup> Camelon is an exception; there the buildings in the *praetentura* are at right angles to the *via principalis* as at Housesteads.

them by a street of some width, varying from eighteen to twenty-four feet. In the central division of the camp there is one block (VII), which conforms to the same type and must be discussed with them. These thirteen buildings vary in length from 152 feet to 169 feet, and in breadth from 33 feet to 37 feet.

There are two among them which obviously differ from the rest : IV, which seems to have been given up to smelting operations, and XV, a buttressed building, which is constructed in large ashlar masonry, and contains a small set of baths at its east end. They will be described separately. There remain eleven blocks, all subdivided by numerous partitions. It is probable *a priori* that ten of them are the company barracks of the ten *centuriae* composing the military cohort. The use of the eleventh must remain uncertain.

The investigation of these barrack blocks did not give very satisfactory results, for several reasons. First, the walls were often destroyed down to their footings ; secondly, the partition walls dividing them were of different periods, and where only foundations remained it was impossible to say whether one wall had preceded the other or both had existed side by side ; thirdly, irremediable harm had been done by previous excavators, who had traced the outline of the buildings much as we were doing, and in their search for inscribed stones had ruined whole strips of wall. Thus along the north part of block I we were only able to determine the position of two doorways, although it is practically certain that there was one in each compartment, the reason being that the door sills and any large stones in the wall had been violently extracted and thrown on one side when they proved blank. Our workmen who knew that Anthony Place had taken a leading part in these operations would say, when the confusion was worse than usual, 'There's nae doubt auld Antony's been here before us.'

In describing these buildings, I shall number the rooms from left to right, and where the rooms of a block are divided into north and south compartments, I shall describe the northernmost as (*a*), the southernmost as (*b*), and so on. It will be seen that they are all divided into ten or eleven rooms, and that in blocks I and VI there was a cross-division of rooms into compartments. In block I, compartment (*a*) usually measures 16 feet by 11 feet and (*b*) 12½ feet by

11 feet ; and in block VI the inner room has the same proportions,  $12\frac{1}{2}$  feet by 11 feet, and the outer room measures 14 feet by 11 feet. Where cross-divisions exist in the remaining barrack-blocks, they are less regular and probably of later date. Division into compartments is characteristic of the legionary camp at Neuss, where the inner room measures  $14\frac{1}{2}$  feet by  $11\frac{1}{2}$  feet, and the outer 8 feet by  $11\frac{1}{2}$  feet ; but along the front of the Neuss barracks runs a veranda  $9\frac{1}{4}$  feet wide, and if this be added to the outer room the dimensions will be found very nearly equal to those of the barracks at Housesteads.

One was on the look-out for an L-shaped building, like those previously discovered at Neuss, CILURNUM, and subsequently at Camelon,



FIG. 18.—PILLAR BUILT INTO ANGLE OF A BARRACK-BLOCK.

north of the Antonine Wall in Scotland, and at Gellygaer, in South Wales. Although no L-shaped barrack survives at Housesteads, it would be rash to assert that none ever existed there. Several stone columns found built into the walls of these blocks seem to attest to the former presence of verandahs ; and in blocks II, III, VI and XVI II, we several times found the footings of a wall parallel to the present front wall, and only three or four feet behind it. The evidence is clearest in the case of block VI, which seems originally to have been a *hemistrigium* facing south. Traces of an older front wall appear in rooms 3, 4, 5 and 9, but were not found, in spite of careful search, in

rooms 1 and 2, which may therefore be supposed to have formed a projecting wing at the outer end of the L-shaped block.

If we take these buildings in succession, we shall find that in their present form they are grouped in pairs, back to back, whereas in the *striga* system proper the pairs are face to face. Although it was seldom possible to discover the doorways, the fronts of the buildings having been more or less ruined by injudicious digging, there was seldom any doubt as to the side on which the doors had been, since on that side there was generally a line of stone channelling to catch the drip from the roofs. Blocks I, VI, XIII and XVIII, face the adjacent rampart; II and III face one another, in the fashion of a regular *striga*. In the case of V, which was much destroyed, the channelling was not found, but there can be no doubt that the doors faced south; the same remarks hold good of XVII, with the difference that here there was one door at the east end. XIV must have faced north. The guiding principle at Housesteads seems to have been that the barrack doors faced the rampart, so that, in case of sudden alarm, the men would go straight to their places; and it will be noted that blocks I, VII, and XIII, cover the whole length of the exposed northern front. On the other hand, in a camp laid out on the *striga* system, the barracks opened upon closed streets; from the point of view of the drill-sergeant this plan had its advantages, more particularly in the field camp of a column on the march, where each company would pack its baggage and form up on its own line, and issue as a complete and disciplined unit in the main street outside. But in case of a night attack, the barracks at Gellygaer, with their backs to the ramparts, are much less practical than those at Housesteads.

Most of these blocks were explored only by trenches. The following were completely excavated: Block I, 1 and 2; II, 8 and 9; III, 4; and IV, 2. Excavation by trenching is always unsatisfactory, more especially in a wet climate; without clearing them completely it is hardly possible to recover the life-history of buildings such as these, which have been altered and rebuilt several times.

In the time and with the funds at our disposal, and in view of the unusual shallowness of the soil and the disturbed condition of the remains, it seemed best to stick to our original scheme, and to trace out the anatomy of the camp as a whole. It would be interesting

to undertake a complete excavation of some of these blocks—VI is the most promising—but there are many forts which would yield better results, because their soil is deeper and less disturbed.

*Construction.*—In most cases the foundations rest upon whin rock, but clay puddling, usual in the foundations of the central buildings (VIII-XII), is rarely found in those of the barracks. Blocks of whin often appear in the lower courses, but these mainly consist of freestone dressed to the same size as the blocks in the camp wall. In block II (8 and 9), the fourth course consists of flags laid as ‘thruffs’; elsewhere this bonding course was not observed. The floors were almost always paved with flags fitted together in irregular fashion; above these there was often a later floor level of stamped clay, and in one case a higher flagged floor (east end of XVII). Hearths of large flags reddened by fire were usually in a corner, sometimes in the middle of the rooms. A very curious hearth was found in VI (2), and is shown on the plan. It is a shallow pit (depth just over one foot) in the middle of the roughly-paved floor. A channel or flue, lined with stone slates set on edge, connected it with the south wall, and had probably served to introduce a current of air. The flue was beneath the level of the floor. The pit contained coal and wood ashes, and showed marks of fire. It contained, also, a quantity of pottery, including fragments of three Samian vases\* which must have been thrown in when the hearth was disused and the later floor constructed over it. This find is of importance, since, sooner or later, when more is known of the chronology of *terra sigillata*, these vases will furnish an approximate date for the reconstruction of this part of the camp.

Were these buildings constructed throughout in stone, or were only the lower courses of stone and the upper structure in wood? This problem was constantly in our minds during the excavation, but no satisfactory evidence was forthcoming. I am inclined to believe that the original barracks were wooden huts raised on stone foundations, and that, at some period after the principal buildings had been ruined, the barracks were restored in stone: the evidence being that in different parts of these blocks two semi-circular stone door-heads were found built into the fourth or fifth course of the foundation.

\* See p. 295,

The use of the door-heads as building material indicates that pre-existing stone buildings had been thrown down ; but it is difficult to believe that if the barracks had been constructed of stone throughout it would have been necessary, even after a sack, to rebuild them from the fourth course upwards. If, however, a wooden superstructure had been burned, it would be natural to use damaged members from the principal buildings of the camp in the restoration of the barracks. Their imperfect alignment is easily accounted for. Thus it is evident that the west ends of IV, V, and VI, were originally in alignment, but at the reconstruction the end wall of V and VI was moved out, perhaps because the drain which skirts them had weakened their foundations. IV was never rebuilt.

Do these stone foundations represent the earliest barracks, or were they preceded by ranges of wooden sheds framed on vertical posts and horizontal sleepers such as we know existed at Ardoch ? We cannot say ; but such a mode of construction, suitable enough on deep soil and level ground, offered especial difficulties on the basalt of Housesteads and along the sloping sides of the ridge ; and it is possible that in this bleak region freestone was more easily obtained than timber.

It is to be noticed in some of the barracks at Neuss that the second of twelve consecutive rooms, each divided into two compartments, had its inner compartment better paved than the rest, and it has been conjectured that the first and second rooms may have been occupied by the centurion, whose tent in the field encampment certainly occupied a corresponding position. It is possible that the two end rooms of VI, one of which has the sunken hearth already described, may have been the quarters of the officer commanding the *centuriae*. In any thoroughgoing excavation of buildings of this type a good look-out should be kept for such differences.

Were women and children at any time resident within the camp ? The comparatively frequent occurrence within the barrack rooms of fragments of bracelets made of glass, paste, and jet, and of beads and similar trinkets, suggests that in the later years of the Roman dominion there may have been 'married quarters' within the walls.

*Block VIII.—The Storehouses.*—North of the praetorium and parallel to it lie two long narrow buildings, the construction of which



makes it probable that they were storehouses. Their walls are exceptionally thick and are strengthened by buttresses, and their floors were raised above the ground, with the difference that the floor of the northern compartment rested on square stone pillars, that of the southern on parallel dwarf walls. No trace of soot was found in either basement, nor did we find any place for a furnace, consequently these were not hypocausts. The object of elevating the floor was to protect the contents of the buildings from damp. The pavement throughout had been removed ; it probably consisted of stone flags.



FIG. 19.—THRESHOLD OF BLOCK VIII SEEN FROM INSIDE.

The doors of these buildings open, contrary to expectation, not on the *via principalis* but on the vacant piazza to the west. The entrance in each case is at the west end, and was closed by two doors. The well-preserved threshold of the northern compartment, with its check, pivot sockets, and bolt-holes for two doors is shown in fig. 19.

The doorway and steps at the east end, and the kiln in the middle of the southern compartment, are insertions of comparatively recent date. It was probably at the time when the kiln was built that the western half of this compartment was razed to the ground. The kiln

was excavated by Hodgson, as has been mentioned on page 199.<sup>28</sup> The kiln inserted in a similar way in the east tower of the south gate is discussed on page 282.

The closest parallel to this double storehouse is furnished by two similar blocks, each consisting of two warehouses, which stand at either side of the praetorium at BREMENIUM. One or more buildings of this type have been found in almost every fort hitherto examined in the north of England, but it does not seem to be common on the German frontier. The following table shows the principal instances:—

Camp.	Praetorium.		Granary.		Buttresses: centre to centre.
	Breadth.	Length.	Length.	Breadth.	
	Feet.	Feet.	Feet.	Feet.	Feet.
Housesteads ... ..	77	90	84	22	14
Chesters... ..	90	125	{ 52	33	10½
			{ 48	29	12
South Shields ... ..	80	90	75	21	10
Cappuck ... ..	...	...	59	22	7½
Bremenium ... ..	73	76	76	21	9½
Do. ... ..	...	...	76	20½	...
Do. ... ..	...	...	76	20½	...
Do. ... ..	...	...	76	20½	...
Birrens (xv) ... ..	70	80	77	24	8½
Do. (xi) ... ..	...	...	71	25	8
Lyne ... ..	102	97	97	20	9
Camelon ... ..	120	92	106	20	9½
Ardoch ... ..	76	88	...	...	...

It will be seen that their dimensions exhibit remarkable uniformity. Their width varies between 20 feet and 25 feet, while their length seems to be governed by the length of the praetorium, or, in other words, by the distance between the *via principalis* and the *via quintana*, for they are usually placed in the *latera praetorii*. The uniformity observed in their dimensions and position appears also in their construction: the floor is raised upon dwarf walls or stone pillars. The walls are strengthened with buttresses, and the doors, when their position is known, are at the end, never at the side. Arguing from the thickness of the walls, the strength of the buttresses, and the

<sup>28</sup> He cleared a part of the adjoining buildings.

narrow proportions of the buildings of this type at Birrens, Mr. Barbour has inferred that they were spanned by stone vaults. In any case it is clear that they were intended to support a heavier superstructure, if not a vault, then perhaps a pitched timber roof with stone slates.

The following considerations suggest that these buildings were storehouses:—

1. Whereas most of the stone buildings in the forts had floors resting on earth and roofs of inflammable thatch, these buildings are practically damp-proof and fire-proof. Now it was of the first importance to the garrisons to have storehouses for grain and other provisions which could defy these two dangers.<sup>29</sup>

2. *Horrea* or storehouses are known to have existed in Roman forts. An inscription found at AESICA<sup>30</sup> records the rebuilding of a *horreum* by the garrison in 225 A.D. At Niederbieber we find a dedication, 'GENIO HOR[REI] N[UMERI] BRITTONUM.' That fort was held by two corps, a *numerus* of Britons, and one of scouts, and it may be inferred that each possessed its own storehouse. In like manner at BREMENIUM, where two corps were stationed, it is likely that the two blocks of storehouses placed symmetrically east and west of the praetorium are those of the Varduli and of the local scouts respectively. Finally, at Capersburg, an inscription found before the door of a building measuring 52 feet by 26 feet identifies it as *horreum*. Its proportions are not those of the British examples, excepting those at Chesters. But, as I have said, the standard pattern of praetoria and other buildings are remarkably diverse in Germany and in Britain. Supposed granaries have come to light there in the forts at Pfünz, Theilenhofen, and Ruffenhofen.<sup>31</sup>

<sup>29</sup> The Gauls attempted to set on fire the buildings inside Caesar's camp by slingng red-hot pellets of clay upon the roofs; and just such fire-hardened pellets were found in the camp at Ardoch.

<sup>30</sup> The region of the fort at AESICA, where this inscription is said to have been found—'the northern part' of the station—was not examined in the recent excavations, but it is likely that a storehouse stood on the north side of the praetorium. At AESICA and CILURNUM, as at BORCOVICIUM, a large house-like building extends from one side of the praetorium to the rampart. It is likely enough that the space on the other side of the praetorium in those camps will be found to contain the buildings which I take to be *horrea*.

<sup>31</sup> A room adjoining the praetorium at Wörth exhibits superficial resemblance in plan to the British *horrea*, owing to the rows of square stone piers on its floor, but these are much larger as well as further apart than our *pilae*, and the editor is probably right in thinking that they supported posts and shelves.

*Block IX.—The West Central Building.*—This, a parallelogram  $87\frac{1}{2}$  feet by 62 feet, seems to have consisted of a narrow central court, a corridor round it, and numerous small rooms entered from the corridor. It stands on a slope, and was more completely destroyed than any other of the central buildings. The well-preserved walls in the southern half of it are only substructures and do not rise to the floor level. It yielded only one object of any interest—an intaglio of glass paste, engraved with the figure of Victory.

*Block XI.*—This is a small building, 89 feet by 24 feet, constructed in the same poor style as the barracks. It was entered by a doorway at the south-east end, which led into the largest of its four compartments—a room containing an apsidal structure, possibly the remains of a bath. The south-west angle of XI and the south-east angle of VI were completely obliterated, this having been the site of a seventeenth century farm house.

*Block XII.—The Commandant's House (?)*—This is a building 124 feet from east to west, and  $82\frac{1}{2}$  feet from north to south, lying south of the praetorium and separated from it by a road 12 feet wide. Its east front is in true alignment with that of the praetorium, and its masonry, though smaller, exhibits the same careful dressing. The two buildings were nearly contemporary. It seems to consist of a central court, a corridor round it, and a series of chambers, three at least of which opened into the surrounding streets. The eastern rooms were explored by Mr. John Clayton in the fifties, and have remained open ever since. Dr. Bruce describes them as follows :—

‘Proceeding once more to the intersection of the main streets, we make our way to the southern gate. We soon come to a considerable mass of building on our right hand. Part of it was excavated in 1858, an enormous mass of debris having been removed. It is not easy to assign a use to each apartment. One of them, when first opened, strongly resembled (though on a small scale) an Italian kitchen; there were marks of fire on its raised hearth. In this part of the camp the ordinary soldiers would dwell. No remains sufficiently perfect exist to give us a complete idea of a Roman house in these military cities. Judging from the remains which do exist, they seem to have been of a dark and gloomy character. No windows have been found; but in most of the stations window glass is met with in the debris.’<sup>22</sup>

Here, too, as in block IX, the walls that could be traced in the southern half of the building were only substructures. It is natural

<sup>22</sup> Bruce, *Handbook to the Roman Wall*, 2nd edition, 134, 135.

to compare it with the better preserved house which occupies a corresponding position at CILURNUM ; with the hypocausted building south of the praetorium at AESICA, and with the small house built round the central court on the opposite side of the praetorium at Gellygaer. Farther afield, a parallel is furnished by the large house, also built round a central court, which lies north of the praetorium of Wiesbaden, and was explained by Von Cohausen as a military hospital. It seems probable that in each case this house-like building was the residence of the officer commanding the station.

*Block XV.*—Before the excavations this was a very conspicuous ruin, the east end, which had been laid bare by Hodgson, standing high above the rest. It had seven (originally eight ?) buttresses on the north side, and originally, no doubt, also on the south. It was explored by trenches, but no partition wall could be discovered other than those at the east end enclosing the suite of baths described by Hodgson in the *History of Northumberland* (pt. II, vol. iii. p. 187).

‘Some of the stones of the pillars of the stove had elegant mouldings upon them, and had plainly been used in former buildings. It consisted of two apartments, divided by a party wall of two feet. The first, or anteroom, which was supported by six pillars, was 11½ feet by 8 feet, and floored in the ordinary way with freestone flags, covered with a composition of lime and pounded tiles. The second was 7 feet square within, and wholly covered, floor and sides, with a similar cement six inches thick, the last coating being finer than the rest, and polished. On its north side, immediately under the mouth of the flue, were thin stones set on edge between the outward wall and the plaster : and on the west side, two upright rows of tufaceous limestone, porous as pumice-stone, one six inches, the other 5 inches broad, were inserted in the wall, apparently for allowing heat to rise from below without the smoke. As the mouth of the stove was over this division of the building, it would have more advantage of the fire than the ante-room, especially as the opening for the smoke seemed to be behind a wall of pillars at the north-east corner of the building, and quite near the mouth of the furnace. Adjoining to the entrance into the anteroom was a large and perfect cistern, apparently for cold water, and formed in the inside of the usual Roman composition of pounded tile and lime, and probably often having in it a portion of pounded limestone.’

The thickness of the walls, and the excellent quality of the masonry, which consists of large well-fitted blocks, distinguish it from the barracks, which it resembles in general proportions. It measures 162½ feet by 35½ feet, and is therefore identical in length with XIV and XVI, the barracks at either side of it. I have little doubt that it is the oldest building of the three. If XIV and XVI had been in

existence when it was built, it would not have been set so far to the north, with its buttresses almost touching the wall of XIV. There was no reason why its south wall should not have been aligned with the south wall of the north tower of the east gateway. Further, the use of buttresses seems to be characteristic of the architecture of the Antonine period; this, however, is a point upon which it is desirable that further evidence should be collected. As to the use of block XV, I can offer no satisfactory suggestion; a somewhat similar building, with baths at one end, has been discovered at a fort in Germany, and interpreted as an officers' mess-house.

*Block IV.—The Iron Works.*—The foundations of this block were found at an unexpected depth, but in good preservation, wherever we sought for them. The soil covering them contained only a small proportion of fallen stones, and we inferred that the original wooden superstructure had been destroyed, and that the building was never restored. On its north side there were considerable bodies of clay, and these extended across the road almost to the wall of III, while within IV, and especially at its west end, pieces of slag and masses of burnt clay were encountered in the trenches. Specimens of the slag were submitted to professor Lebour, whose report on them is as follows: 'At my request and through the kindness of professor P. P. Bedson of Durham College of Science, an excellent analyst—Mr. H. E. Watt—made a careful qualitative examination of the slags, with the result that they are proved to be iron slags, and not to be connected with smelting for either lead or copper.' Writing somewhat later, professor Lebour adds: 'There is plenty of ironstone in the neighbourhood of the Roman Wall, whence material for smelting could be procured, e.g., close to Chesterholm, where indeed clay-ironstone of good quality was worked within the last sixty years.'

*Late buildings.*—At a somewhat late date, a long chamber was built right across the south gate, on the road, leaving a narrow space for foot passengers between itself and the guard chamber. The exact date for this change cannot be given, but a *terminus ante quem* is furnished by the pottery found in connexion with it. There are specimens of a type of dish of which many fragments were found hereabouts and at higher levels all over the camp. It is possible that in the fourth century accommodation had to be found within the

walls for the population of the civil settlement which had grown up outside. It will be interesting to see, when the suburban buildings are examined, how far the latest pottery found in them agrees with the pottery found in the intrusive structures within the camp; in other words, how far the desertion of the civil settlement outside the wall synchronized with the extension of the buildings within. Another instance of the north and south road being blocked by a late building occurs at the east end of block I. There the outlet between I and VII is closed by a long chamber with the remains of an apse towards the west. It has a rude pavement of massive building stones and flags roughly fitted together. The walls, as far as can be judged from their remains, had no proper foundation, but rested directly on the pavement; part of them may have been of wood, for at the east end a layer of wood was found lying on the pavement. Below the pavement was an accumulation, eight or ten inches thick, of black mud, and below that the original rough paving of the street, and the continuation of the channelling which skirts the walls of the barrack. Probably this was a post-Roman building; it is plain that when it was built I and VII were to some extent ruined.

*Work still to be done.*—Should further investigations be undertaken at Housesteads, attention should be directed to the following points: (1) Within the camp: Blocks I, VI, XII and XV, would repay further investigation; block IV should be further excavated with a view to determining the nature and extent of the smelting operations carried on there, and obtaining confirmatory evidence of their Roman date. The drains should be traced and their outfall examined. It would also be worth while to get a complete plan of the latrines and to clear the ground between them and the south gate. There appears to be a greater depth and a greater accumulation of rubbish here than in any other part of the camp, and interesting conclusions might be drawn from the stratification of the remains; elsewhere materials for stratigraphic study are very scanty. (2) Outside the camp: the ditch, the roads approaching the camp, the supposed banks and ditches outside the west gate, and the buildings outside the south gate, one of which, to the west, is Roman work of good period, while others may or may not be medieval. The course of the vallum is still to be traced, and the remains of the settlement on the slope

between the camp and chapel hill would certainly yield interesting results. The trial trenches in the valley brought to light in a few hours more Samian pottery of good quality than was found in weeks of excavation in the camp above; pieces of oak posts and various objects of leather were preserved here in the damp peaty soil. It was in this region that the inscriptions and sculptures which made the name of BORCOVICIUS famous were discovered. There is reason to suspect the existence of a large building, perhaps the temple of the Mother Goddesses, at the east end of the valley near the Knag burn, where the drum of a large column lies on the surface. Higher up the burn, the baths of the station might be examined, but part has been destroyed by the stream, and it would be impossible to recover the complete plan.

*The Camp as a whole.*—The unusual length of the camp (610 feet), in proportion to its width (367 feet), raises an interesting question: Was it of this abnormal shape from the first, or has it been lengthened? Mr. Haverfield has shown reason for thinking that in the case of CILURNUM and AMBOGLANNA the portion of the fort which projects to the north of the wall is an addition to the original enclosure. It is a strong confirmation of this theory that the portion of CILURNUM south of the line of the wall measures about 435 feet from east to west, and 330 feet from north to south—dimensions which correspond very nearly with those of AESICA, PROCOLITIA, VINDOBALA, and several other northern forts.<sup>33</sup> Now the length of Housesteads from north to south (367 feet) corresponds pretty well with that of AESICA (351 feet), and of the hypothetical early camp at CILURNUM (330 feet). AESICA, in fact, retains the original dimensions of the forts along the turf wall, which once, as I believe, extended from sea to sea. If AESICA were enlarged towards the north, the result would be a camp of the general proportions of CILURNUM; enlarged to the west it would resemble Housesteads. There are two other camps, South Shields and VINDOLANA, the proportions of which approximate to those of Housesteads. Of the internal arrangements of VINDOLANA (about 495 feet by 300 feet) we know nothing. It is possible that it was originally about the same size as another presumably earlier fort, Castlesteads

<sup>33</sup> Moresby falls into this group if its reported area, 440 feet by 358 feet, be correct.



## EXCAVATIONS AT HOUSESTEADS :

(about 390 feet by 300 feet), and owes its present abnormal proportions to an extension; the reason for not extending it in a direction along its shorter axis being, perhaps, that there was a ravine on one

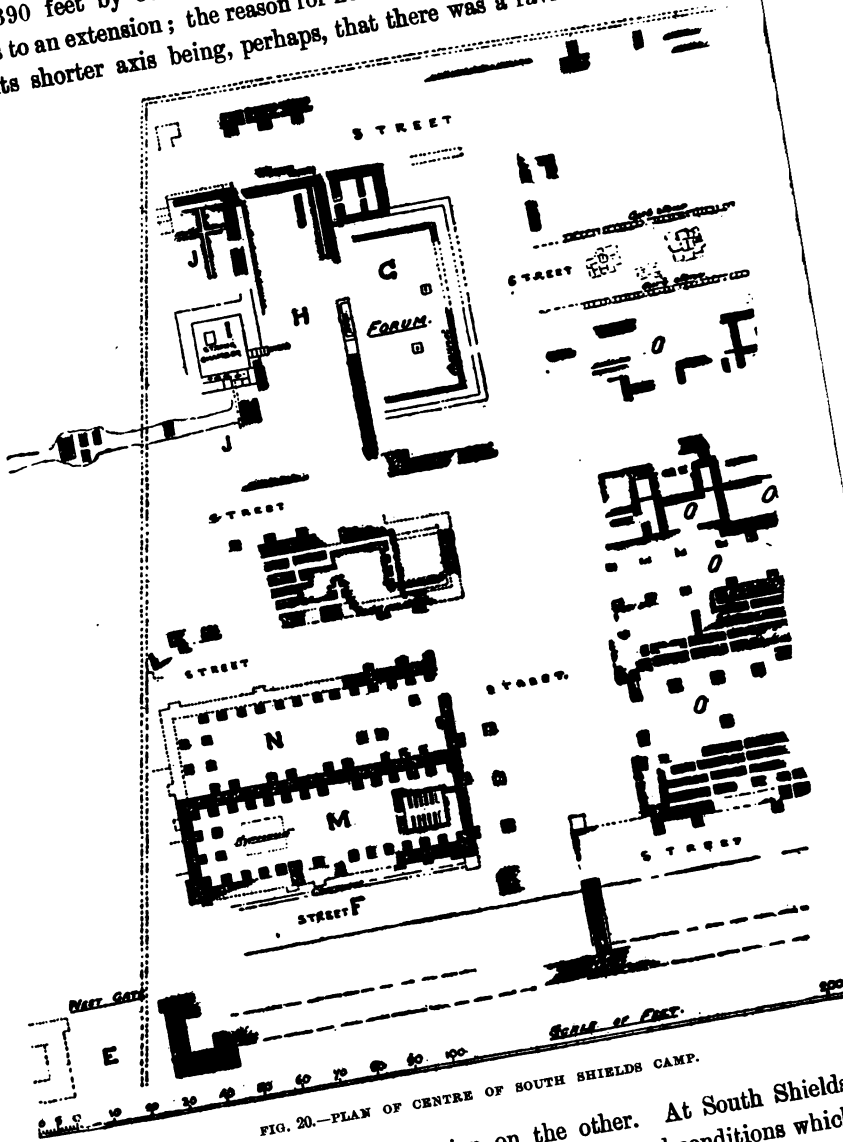


FIG. 20.—PLAN OF CENTRE OF SOUTH SHIELDS CAMP.

side and the baths of the station on the other. At South Shields (624 feet by 370 feet) we cannot guess at the local conditions which

may have made it necessary to extend along the longer axis ; but, fortunately, we know the ground plan, which is so abnormal as to require some such explanation as this. The praetorium, and consequently the fort, originally faced south ; in due course the camp was enlarged, and a new praetorian gate and *via principalis* were constructed north of the praetorium, the intention being, no doubt, to erect a new and enlarged praetorium facing north ; but this change was never carried out, and so we have at South Shields the curious anomaly of a praetorium turning its back on the praetorian gate. These are speculations, but a little study of the plan of CILURNUM will show that the present praetorium there (the so-called 'forum') cannot be older than the enlargement of the camp ; the whole interior must have been remodelled, and the previous buildings, whether of wood or of stone, swept away when the camp was extended. Traces of earlier buildings, or, failing buildings, of earlier roads, should be looked for in future excavations there.

Evidence suggesting these speculations, in particular the ditch in the line of the Wall ditch which crosses the fort at Chesters, has accumulated since the excavation at Housesteads. But the possibility that the extension of the camp to the west might account for its abnormal proportions was present in the minds of the excavators. No evidence in favour of such a theory was observed. If, as is probable, the original camp had a wall of turf, this would have been obliterated where it crossed the enlarged camp, and its ditch might be overlooked.

*The Walls and Gates ; the Earthen Rampart.*—The four gates and the greater part of the walls had been excavated by Hodgson and John Clayton (see pp. 199 and 202) and we only re-examined them as much as was necessary for the purpose of making a plan. The buildings on the west wall, certainly of very late construction, had been cleared out by our predecessors, and we could glean no evidence as to their use. Our chief discovery was a tower on the south wall midway between the south-west angle and the south gate. It seemed possible, on the analogy of CILURNUM and AMBOGLANNA, that there had been two gates on each of the long sides, and we examined this part of the south wall in order to settle the point. There is now a breach through which a modern cart road passes ; but in Roman times there was no

gateway, only the tower shown on the plan. A strip of wall east of the south gate, as far as the south-east angle tower, has never yet been excavated, and as this part of the enclosure has deep supersoil it should repay exploration. The strip from the angle tower to the east gate had been excavated previously, and we contented ourselves with re-opening the foundations of several buildings, among them one that looks like a remarkably small tower. The corresponding part north of the gate had been excavated by John Clayton, but to no great

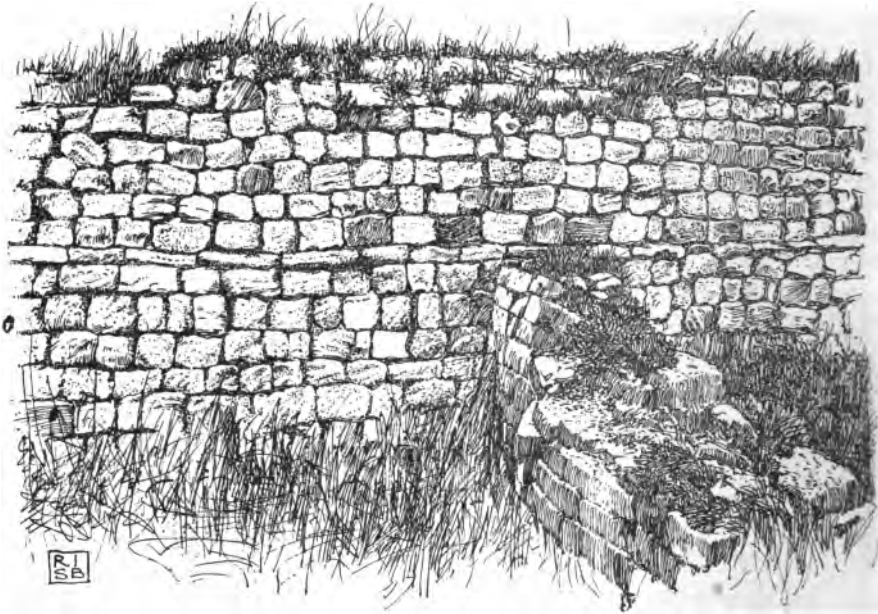


FIG. 21.—THE CAMP-WALL NORTH OF THE EAST GATE, SEEN FROM INSIDE.

depth, and here we found the remains of a rough retaining wall, which had evidently supported a bank of earth behind the rampart. A similar retaining wall was uncovered to the west of the north gate. Hodgson observed 'a terrace, made of earth and clay, which ran from tower to turret along the inside of the wall to the height of about five feet above its foundation,' and noted that the insides of the towers of the gates and of the turrets between them and the corners of the walls were filled up with clay to the same level. The greater part of

this bank seems to have been dug away by our predecessors, in the process of laying bare the walls and towers. It can never have been continuous—the latrines, for instance, interrupted it—and it must have varied in width. A solid body of chippings and clay runs along the south wall to the west of the south gate, and a deposit of the same material, thrown back by the workmen who cleared the face of the wall fifty years ago, covered part of VI and XII. Quite distinct from this earthen rampart are certain strips of wall built close behind the original stone rampart in order to strengthen it. They occur at the south-west angle, midway along the north side, and immediately south of the east gate. At the south-east angle the wall has been thickened, at what date it is difficult to say; there certainly was some rebuilding during the last century. The normal construction of the camp wall as seen from inside is shown in fig. 21.

*Roads.*—In constructing the roads at Housesteads, the Romans availed themselves where possible of the rock, a good instance being the road from the east gate to the praetorium. Elsewhere there was usually a pitching of rough whins covered with masons' chippings; and over these in some cases was laid a pavement of flags. Between II and III there was regular 'cobble' paving. Common building stones were frequently used in later repairs. In the roadway between XVII and XVIII there survives a large patch of flagged paving (shown in the plan), and there can be no doubt that such paving once existed in many parts of the camp from which it has now disappeared. Along the front of each block there ran a line of stone channelling; there seems to have been a gutter, less well constructed, along the margin of the made roads; and these were in communication with a system of underground drains, which it would be interesting to explore further than we could do in our one season's digging. Three main drains were located: (1) running down the slope from north to south, at the west end of the camp, and presumably issuing into the camp ditch; (2) draining blocks IX and X and descending the hill in the same direction as the former; (3) draining the buildings in the north-east quarter of the camp, and issuing at the junction of the great wall with the rampart. These drains were constructed alike, of sandstone flags set on edge, with cover stones of the same material; the bottom was sometimes rock, sometimes rammed clay and stones, sometimes flagging.

Whin boulders were sometimes put at the angles of the buildings as though to protect them from the wheels of passing carts.

*The Open Area.*—West of VIII and north of IX lies a large open area, not a street, which was never built upon. To the west it has a pavement of natural rock, and farther east, where the rock descends, the ground has been brought up to the same level and the surface formed with chippings and gravel. It is skirted on the west by a street which corresponds with the *Via Quintana* of Hyginus ; and consequently it is hereabouts that we might expect to find the *Forum Quintanum*, of which, unfortunately, we know little beyond its name and the fact that in some sense it was a market. The corresponding part of the camps at AESICA and CILURNUM has not yet been examined. There is a somewhat similar open area behind the *prætorium* at Gellygaer ; and at South Shields, though there is not the same square space, there is an unusually wide street, flanked at either side by three long narrow buttressed buildings. At Housesteads there are only two such buildings—those which together form block VIII ; and their doors open directly on this open space.<sup>34</sup> If, as seems almost certain, they were store houses, the open space would be used for loading and unloading carts, and troops might parade there when supplies were served out. The fact that during the prolonged occupation of the camp, while subsidiary buildings sprang up elsewhere, one of them completely blocking the south end of the *via principalis*, there was never any encroachment upon this open space, indicates that it played some definite and permanent part in the life of the garrison.

*Water Supply.*—The fort was probably placed where it is with a view to the water obtainable from the burn on the east and from springs and wells on the adjacent slopes. It is possible that water was brought into the camp by a conduit. We learn from an inscription that this was done at CILURNUM<sup>35</sup> ; while at AMBOGLANNA, VINDOLANA, and AESICA we have remains of the actual water-courses. If this was done for CILURNUM, which lies within a furlong of the inexhaustible Tyne, Housesteads would not have been left dependent on the outlying wells had it been possible to conduct water from a higher

<sup>34</sup> As I have already pointed out, the door and steps at the east end of VIII are post-Roman, contemporary with the construction of the kiln and demolition of the south-west quarter of the building.

<sup>35</sup> Also at the South Shields camp.—*Arch. Ael.*, XVI, 157 [ED.].

level. No trace of a conduit has been found; judging from the level, if any existed it must have entered the camp from the west. When the supposed earth works outside the west gate are examined, trenches should be cut from north to south, parallel to the front of the camp, to ascertain whether any water channel entered the camp from that side. Several cisterns were found in the eastern half of the camp. One such, about which Dr. Bruce recorded the opinion of one of Mr. Clayton's workmen that the Romans used it for washing their Scotch prisoners in, is lying open and visible at the north gate; two others, of about the same dimensions, 10 feet by 5 feet, lie near the north-east and south-east angles; and part of a fourth near the south gate. Their construction is shown in fig. 22, which represents the one at the east end of block XIII. A fifth, about three times as large, 15 feet by 10 feet, a well-preserved specimen of Roman construction, was discovered built against the south-east angle-tower, the ground floor of which seems

to have been filled up when the cistern was constructed. The overflow water from it was used for flushing the latrines adjoining it to the south-west. A detailed description and drawing of this cistern, by Mr. Knowles, are appended. Failing evidence of a conduit, we must suppose that these tanks were reservoirs for rain water, and that they were once much more numerous. In I, 4, there is a roughly constructed cistern below the floor-level, with a square opening in the adjoining wall, through which it received the surface water from the street behind.

*The Latrines.*—Mr. W. H. Knowles, F.S.A., made plans of this building and has kindly furnished the following notes :

'In the last weeks of the excavation a building containing latrines was discovered at the south-east corner of the camp. The building

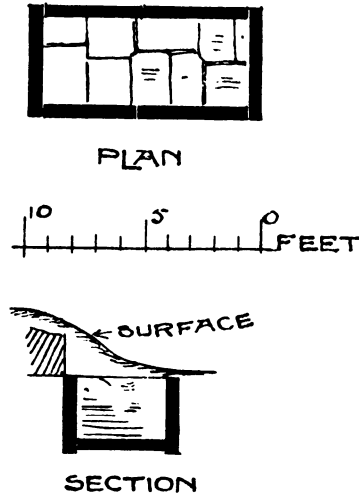


FIG. 22. CISTERN AT EAST END OF BLOCK XIV.

is a parallelogram measuring internally about thirty-one feet by sixteen. The sides abut on the south wall of the camp, within a few feet of the angle-tower. Although no similar structure has hitherto been opened out in the stations on the Wall, it is not difficult to determine the purpose for which the building was erected, its details being very similar to the latrine-blocks discovered in the Roman cities of Silchester and Wroxeter.<sup>36</sup> At Housesteads the fall of the land is from north to south, and the latrines are consequently in the

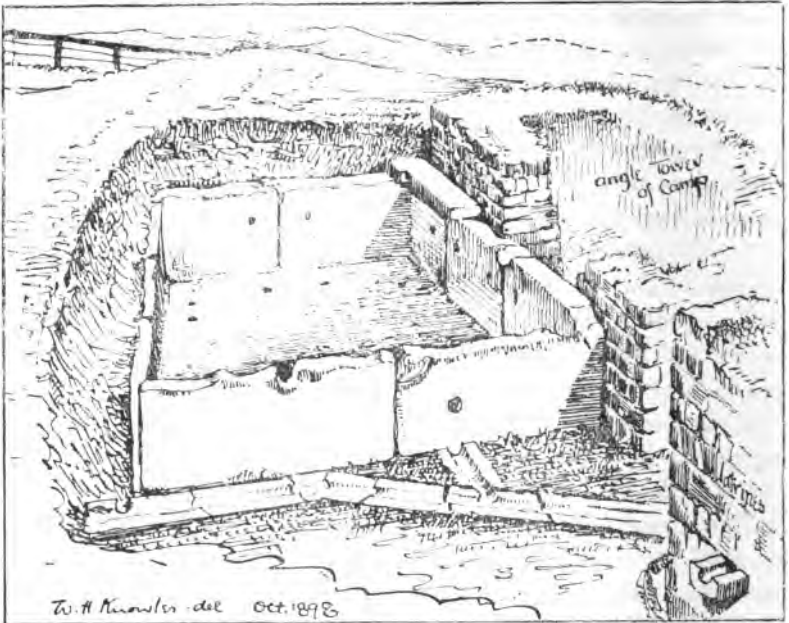
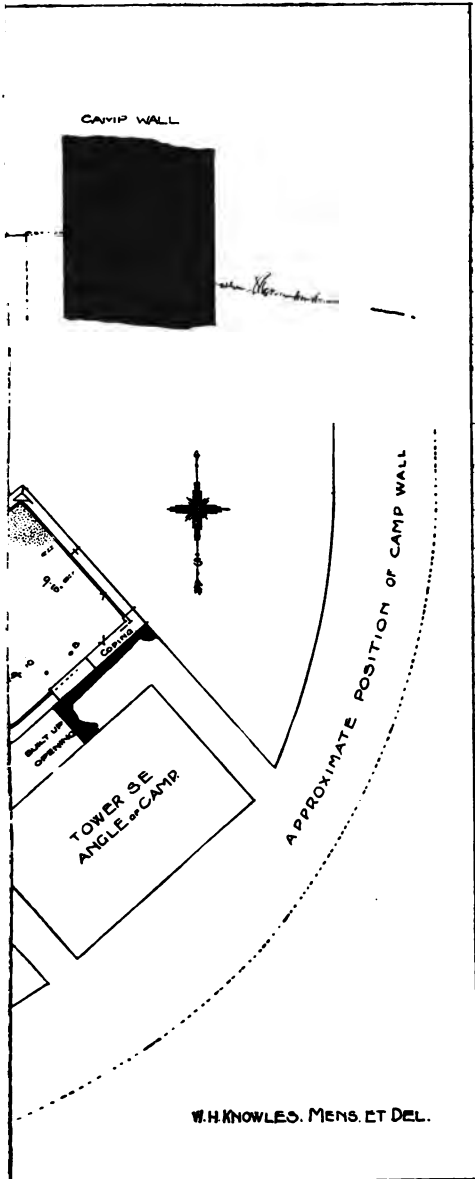


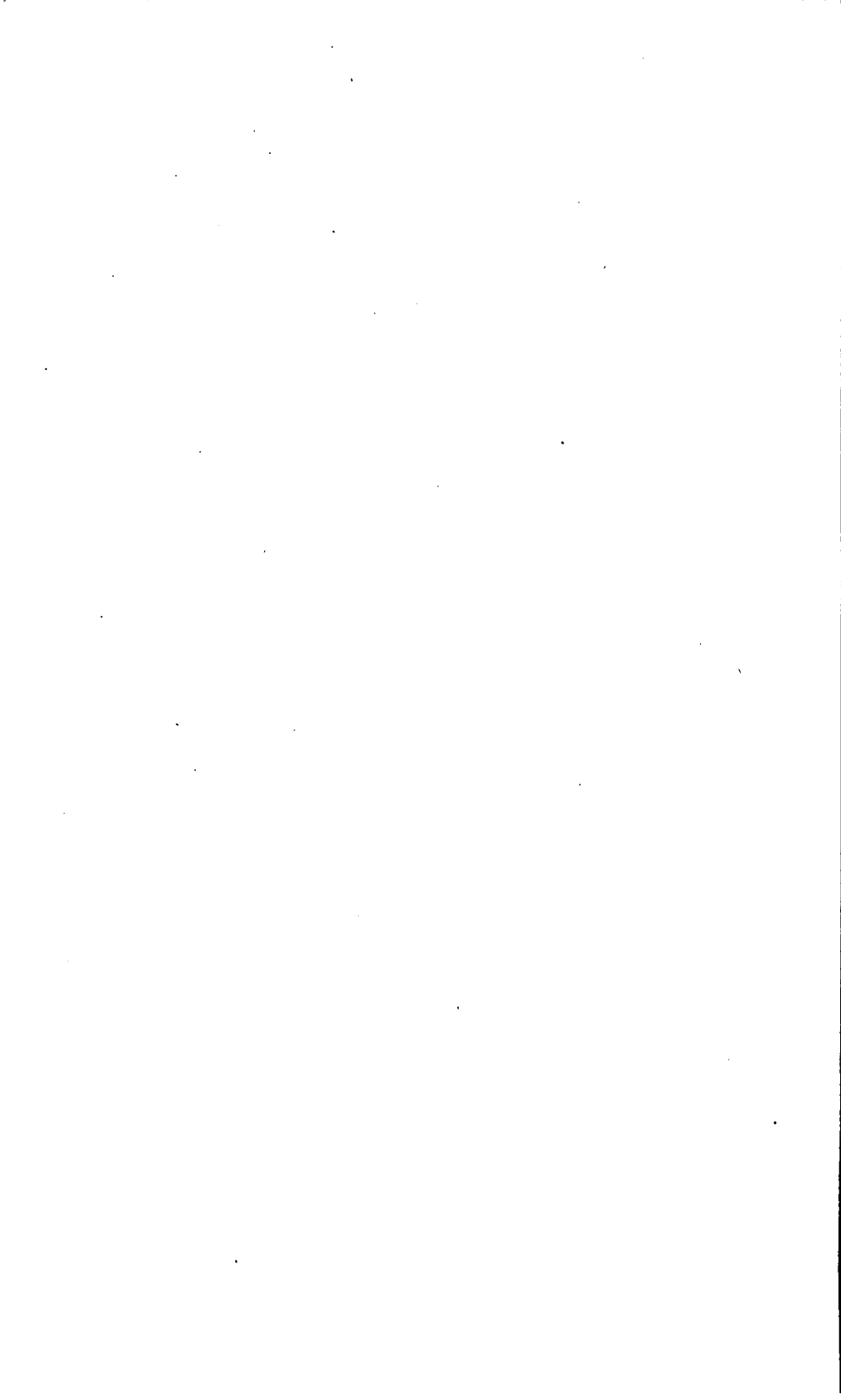
FIG. 23.—SKETCH OF STONE CISTERN.

position best calculated to receive the surface water which was needed for flushing purposes. The openings giving access to the parallelogram are at the ends, in the middle of the east and west walls. A trough (see the plan, plate XVIII) three feet wide and two feet six inches deep, passes along the sides, and across the west end; it is formed with stone side-walls and flagged bottom.

<sup>36</sup> [Less complete examples have been excavated in a private house at Caerwent and in the fort at Gellygaer.—R.C.B.]







Above these troughs, seats were doubtless arranged in the same way as at URICONIUM, but there is no visible provision for the woodwork beyond a large rebate (see section C C) formed on the top of the inner trough wall, which may have supported a sill-piece. The floor of the passage between the troughs is made of flagging, bordered by a channel stone. Some gutters or channels at the height of the exterior ground level emptied into the trough and served to flush it.

'Near to the latrines, but erected at a later date, is a stone tank or cistern; it is placed against the angle tower and has blocked the original entrance to it. The tank is fourteen feet ten inches by nine feet ten inches, by three feet in height. The sides and ends are formed with ten large stone slabs, six inches in thickness, and the

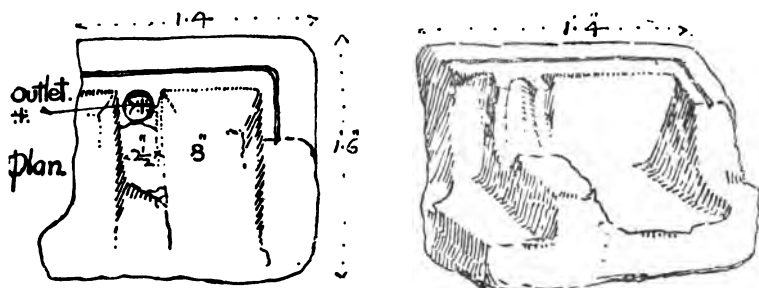


FIG. 24.—FRAGMENTS OF STONE TROUGH.

bottom with cement finished in the angle with the usual quarter-round moulding. The slabs are shouldered and mitred at the external angles, and abut against each other elsewhere. The sides of the stones are grooved and run with lead, and on the top secured with dove-tailed iron cramps. Two coping-stones fourteen inches by six inches remain on the south-east side. On the stone slabs, and in the cement floor (see the small section A A) are some lead plugs, they are placed on either side of the vertical joints of the side slabs, and opposite thereto in the cement; no doubt the ends of iron stay-bars were therein secured. There is no indication of an inlet, the water must, therefore, have passed over the top of the tank. An overflow is provided (see section and sketch) in the west (actually south-west) side by sinking the upper edge of one of the slabs, and about midway in the height

is a hole for an outlet pipe or plug ; both deliver into a hollow stone channel which continues to the door opening (then built up) at the east end of the latrine, and passes, one foot above the floor level, into the stone gutter of the passage. This gutter is laid with a fall to the west, then to the north, and flowing eastwards the water is thus made to pass round the passage, and delivers into the trough at the north-east end ; possibly the cistern was provided to afford a flush when the surface water failed.'

Two stone troughs found in the paved gangway of the latrines building are shown in figs. 24 and 25. The former had a partition and an outlet starting from the top of it ; the latter has a round orifice at one end for the admission of a pipe and an overflow-opening at the other end. They look like washing

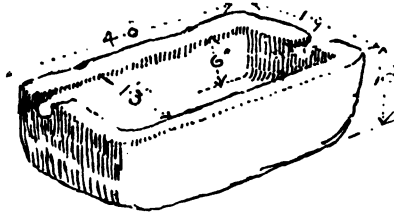


FIG. 25.—STONE TROUGH.

troughs, but as they were not in their original positions we cannot say how they were supplied with water.

## EXCAVATIONS OUTSIDE THE FORT.

### 1.—THE SO-CALLED AMPHITHEATRE.

About one hundred and fifty yards north-east of the camp, and on the north side of the Wall, just beyond the gateway in the valley of the Knag-burn which Mr. John Clayton explored in 1856, there is an artificial hollow commonly known as 'the Roman Amphitheatre.' The first suggestion of the name came from Hodgson, coupled with a hint that the place might equally well have been a quarry, and later writers have recurred to the alluring idea, John Clayton with decided reserve, MacLauchlan and Bruce with increasing confidence.<sup>37</sup>

<sup>37</sup> 'Apparently made by human labour ; but whether it was used . . . as an amphitheatre, or is merely the alveus of an ancient quarry, it is vain to conjecture.'—HODGSON.

'Scarcely of sufficient dimensions to justify the title of amphitheatre.'—JOHN CLAYTON.

'It is circular and, though north of the Wall, was perhaps an amphitheatre.'—MACLAUHLAN.

'Probably an amphitheatre on a small scale.'—BRUCE.

At the request of some members of the society's council, the hollow was trenched in two directions. The sections obtained are shown in the annexed drawing (fig. 26). Upon the slope nearest to the wall a thick bed of freestone chippings lay quite near the surface; it probably dates from the building of the Wall. At the bottom of the hollow quantities of similar chippings were met with everywhere under a foot-and-a-half of blackish top-soil, which yielded some scraps of Roman pottery. There was no level floor in the centre, and nothing that could be construed as seats or supports for seats on the surrounding slopes. All the appearances were those of a shallow quarry. It is to be noticed that this is almost the only point for some distance

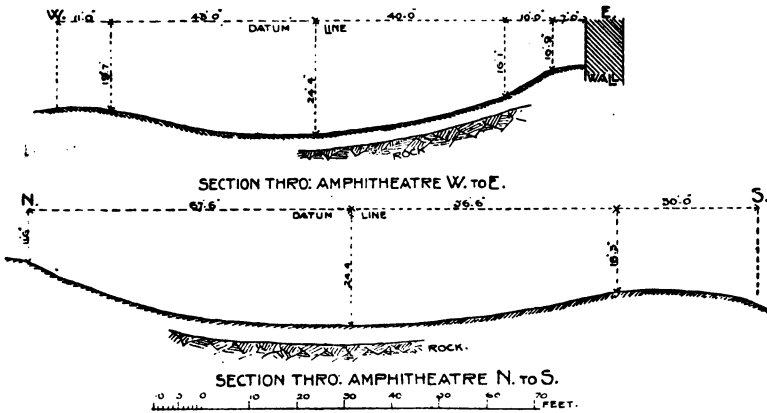


Fig. 26.

along the line of heights where the freestone underlying the basalt crops out so that it can be quarried within a few yards of the Wall.

## 2.—THE WELL BESIDE THE KNAG-BURN (FIG. 27).

A few yards east of the Knag-burn and south of the gateway in the Wall 'is a powerful spring carefully cased in Roman masonry. It was discovered,' says Bruce in his *Handbook*, 'in the summer of 1844.' As this had never been cleaned out since its discovery, it seemed possible that it might yield objects of interest. The excavation disclosed the admirable quality of its Roman masonry, but nothing whatever in the way of antiquities except a home-made

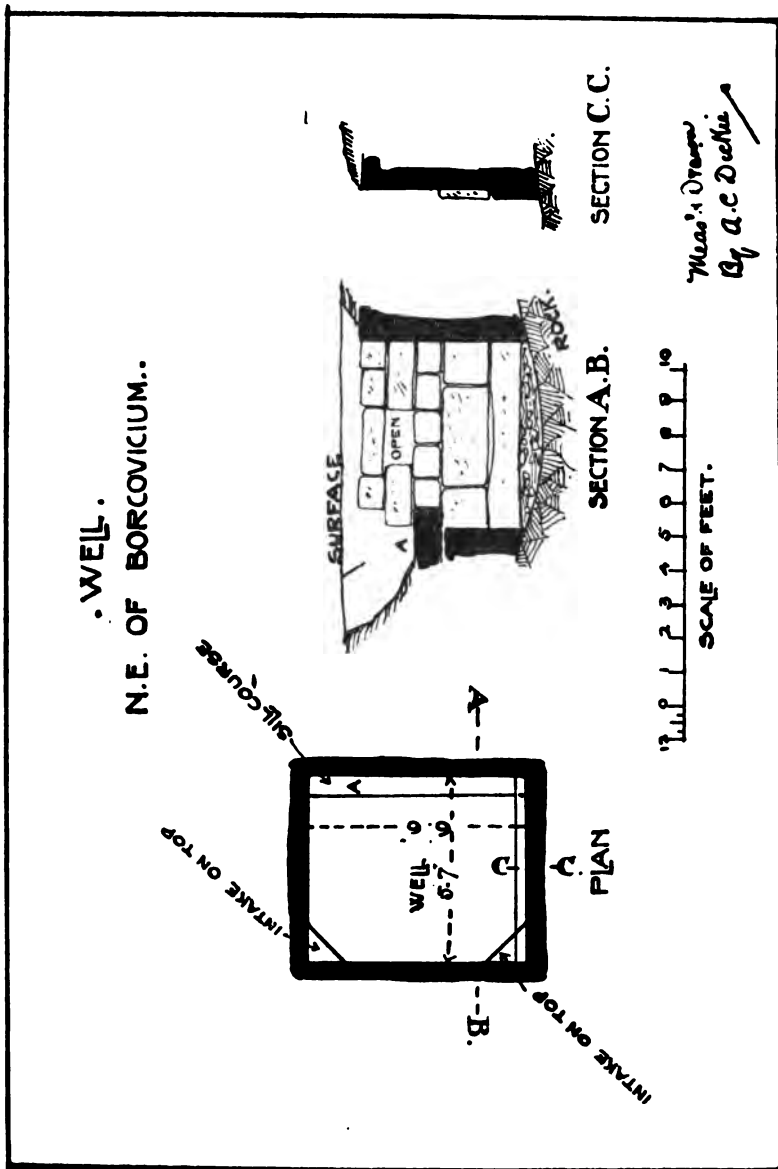


FIG. 27. WELL NEAR THE KNAG-BURN.

counter or draughtsman of red pottery. A local workman informed us that he had once seen part of a line of stone channelling to the south of the well, half-way between it and the ruins of what were probably the baths of the station in a sheltered hollow to the east of the burn. If so, the main use of the spring probably was to supply the baths with water. It would seem that these baths were not so completely destroyed as Hodgson believed. A few years ago, some workmen prospecting for lead made an experimental cutting here and exposed some well-built Roman walls which disappear into the face of a steep bank of accumulated *débris*. Part of a large armlet of Kimmeridge shale was picked up here by one of our workers.

### 3.—THE TEMPLE OF MITHRAS.<sup>38</sup>

The cave or temple of Mithras at Housesteads was accidentally discovered in June, 1822, by workmen digging for stones in the side of a hillock opposite the west end of the Chapel hill. The dimensions of the little cell, including its walls, were barely thirteen feet from north to south by ten from east to west, and its only features were a recess, seven feet by two-and-a-half, on the west and a doorway

<sup>38</sup> Recent researches, especially those of professor Franz Cumont of Ghent, who has collected and analysed an immense amount of evidence in his great book, *Les Mystères de Mithra*, have cleared up much that was obscure about the history and nature of Mithras-worship. Derived with considerable modifications from the cult of Mithras, the Persian god of light, it first appeared in the Roman empire towards the end of the first century of our era. Oriental auxiliaries introduced it into the army, where it took root and spread rapidly through the camps and garrison towns of the Danubé provinces, Germany, Britain, and North Africa. The new faith travelled with time-expired soldiers to their homes in all parts of the empire, with Oriental merchants to the ports and trading-centres of the Mediterranean. For a time its influence was confined to the lower orders, but it became fashionable at the end of the second century when the emperor Commodus was initiated. Thenceforward inscribed monuments of Mithraism become common and the names of the highest officials appear on them. Even after the conversion of Constantine to Christianity the upper classes remained faithful to Mithras, and a dedication in his honour is known to have been made as late as the year 387.

The sacrifice of the bull, which is the subject of a great number of Mithraic sculptures, refers to a Persian myth of the creation in which the bull, the first created of living things, is slain that the remainder of animals and plants may be born of its blood. At the end of the world a similar sacrifice was to renew the life of mankind. Mithras was revered as Creator, Redeemer, and Mediator. It is not surprising that the early fathers, some of whom tell us that the followers of Mithras believed in a resurrection and in the immortality of the soul, and celebrated a kind of sacrament, should have regarded a cult which had so many points of contact with Christianity as a most dangerous rival,

facing it on the east. Within the recess—it was this that constituted the unique interest of the discovery—a figure of the god and two altars



FIG. 28. THE GOD MITHRAS, WITH THE SIGNS OF THE ZODIAC.

were found standing in their original positions. They had remained undisturbed and unsuspected, their heads only a few inches below the turf, since the third or fourth century of our era. The sculptured figure represents Mithras at the moment of his miraculous birth springing, torch and sword in hand, from the rock, encircled by an oval frame engraved with the signs of the Zodiac. Its top, and those of the altars at either side, had suffered somewhat from the weather, but 'their lower parts were as fresh and perfect as on the day they were turned off the bench of the mason who carved them.' A

headless figure holding a torch lay behind the altars, and before them were some fragments of the sculptured slab, representing the mystical sacrifice of a bull, which usually covered the end wall in temples of Mithras. The workmen supposed that this great altar-piece, which must when perfect have been six feet in height and as much or more in width, had been broken up twelve years before, when the cave was drained and the dyke on the west was built; 'consequently,' says Hodgson, 'the parts wanting may probably be found either as covers to the drain or in the field wall.'<sup>39</sup>

The re-excavation of the site in August, 1898, was prompted in some degree by the hope of recovering these fragments, still more by

<sup>39</sup> John Hodgson gave a full account of the discovery in *Archaeologia Aeliana*, 4to, I. p. 263, and in his *History of Northumberland*, pt. II, vol. iii. p. 190. Another contemporary report is reprinted in *Lapidarium Septentrionale*, p. 96, from the *Newcastle Chronicle*.

a conviction that the little cell opened in 1822 was only the inner sanctuary, not the main body of the temple. Hodgson, whose sketch-plan is here reproduced (fig. 29), heard that when the drain just referred to (shown by a dotted line on the plan), was being made, 'great quantities of stones were dug out of the foundations of very extensive walls to the east of the room containing the altars,' and satisfied himself that its eastern door must have communicated with other buildings. The excavators of 1898 did not succeed in finding the inner shrine, which must have been demolished for the sake of its stones soon after 1822, nor did they recover any fragments of the great sacrifice slab. But they traced the adjoining foundations and ascertained that they were those of a Mithraeum of normal type, and were rewarded by finding two inscribed altars and three sculptured figures in the ruins.

The two essentials for a temple of Mithras were that it should be at least partly underground and should be supplied with water, if possible direct from a natural source. In the present case the builders chose a spot where there was a small spring beside a hillock, and produced the semblance of a cave by excavating a strip of ground some fifty feet long and twenty wide, and lining it with rough walls. Its depth was slight at the east end and increased as the ground rose towards the west; the floor of the west end, now destroyed, must have been five feet below the outer ground-level.<sup>40</sup> Internally, the

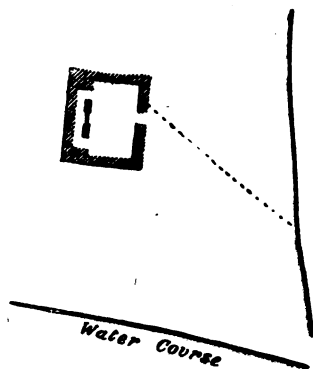


FIG. 29.—HODGSON'S PLAN OF THE MITHRAEUM.

<sup>40</sup> The walls which Hodgson found standing five feet high in 1822 were faced only on the inside. This is true of the remaining fragments of wall, except at the east end where the ground slopes away. The cave-like aspect of the inner shrine may have been increased by heaping earth against the walls so as to mask them completely, and the roof may have been so contrived as to assist the illusion. Hodgson suggested that it was of thatch. Some pieces of tile were found, but not enough to indicate a roof of that material. A layer of charcoal above the pavement was probably the remains of the burned roof-beams. The construction throughout was rude, the walls being without much foundation, and consisting of rough whins and small undressed pieces of freestone bonded with clay. Two large stones projecting from the south wall, near its eastern end, may be remains of buttresses.



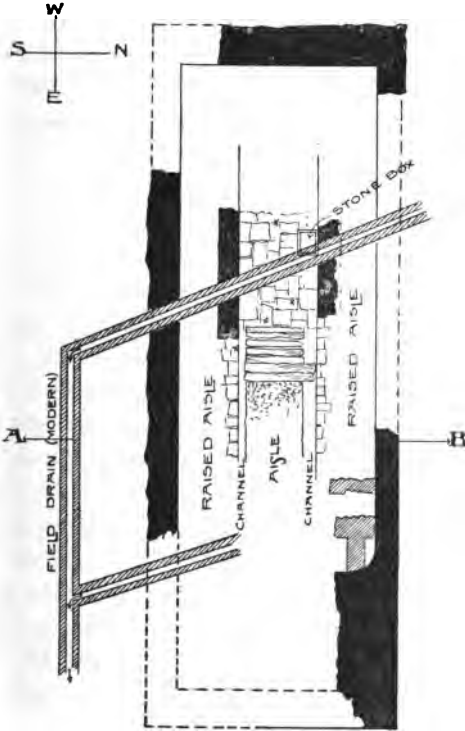
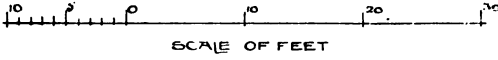
temple measured about forty-two feet by sixteen, and probably consisted originally of a small vestibule, a long nave with raised aisles, and an inner shrine. All that can now be made out with certainty is the paved central passage, six feet six inches wide, and fragments of the dwarf-walls, roughly built and faced only on the side towards the nave, supporting the raised lateral platforms or aisles upon which the worshippers knelt during the celebration of the mysteries. The



FIG. 30.—SCULPTURED SLAB REPRESENTING THE MYSTICAL SACRIFICE OF A BULL.

northern aisle-wall is still in one place nearly two feet high, and the aisle-floors, of stamped clay on a bed of stone-chips, must have risen at least this height above the floor of the nave. Each aisle was about five feet broad, if, as is probable, the top of the retaining-walls was flush with the floor—somewhat narrower if there was a parapet. The nave has a pavement of flags, two to four inches thick, which extends

CAVE OF MITHRAEUM.



GROUND PLAN



SECTION A.B.

*Plan drawn by  
A. C. Green & Co.  
Sept 1896*

FIG. 31.—PLAN OF THE MITHRAEUM AT HOUSESTEADS.

with interruptions nearly the whole length of the building. At one place there were found remains of a later floor, consisting of planks of oak and small birch logs laid on stone-chippings, which in turn rested on the original pavement. The planks were too rough to have formed a floor themselves, and were probably meant to support a pavement of flags, the object being to raise the floor above the overflow of the spring. The receptacle into which the spring rises is a stone box formed of flags jointed with clay and sunk in the pavement. It is seventeen-and-a-half inches deep and twenty-one by fifteen inches at its mouth. The presence of this spring greatly hindered the excavation, since part of the area was constantly under water. The bedding under the wooden floor is so arranged as to leave a channel or gutter at either side ; but this disappears towards the west end, where the pavement is higher and comparatively dry.

The east end is almost obliterated. The mass of masonry shown in the plan at the north-east angle may have been below the floor-level of the porch and vestibule ; or it may represent a raised platform in front of the entrance.<sup>41</sup> In either case its object was to protect this end of the building from the flow of water which in winter finds its way through the hollow between the Chapel hill and the Mithraeum from a large spring cased with Roman masonry in the field on the north.

Of the west end, also, practically nothing survives, but it was proved that the building extended no farther to the west than the foundations shown in the plan, and it is certain that the plan made by Hodgson in 1822 must be fitted, despite some discrepancies in dimensions, into the gap at the west end of ours.<sup>42</sup> The little cell with the group of images and altars standing in the recess of its west wall was the inner shrine, the holy of holies, which can be recognized in several other temples of Mithras. Recent research has shown

<sup>41</sup> In the Mithraeum at Ober-Florstadt (*O.R.L.* xviii.), there is a raised vestibule of about the same proportions as are indicated by this substructure. I have to thank Mr. Blair for calling my attention to the likeness.

<sup>42</sup> The plan reproduced in fig. 29 is taken from *Archaeologia Aeliana*, 4to, I. It is only a rough sketch-plan. The plan in the *History of Northumberland*, pt. II, vol. iii, facing p. 190, differs a little. The north and south walls are prolonged to the east beyond the cross-wall, and there is a second door, of which Hodgson says, 'immediately behind the altars there were indications of a passage by stone steps or stairs through the west wall.' This is not probable, and there is no hint of it in his earlier account.

that these buildings usually conformed more or less to the same plan, consisting of a small vestibule, a long nave with a raised aisle or platform at either side, upon which the worshippers knelt, leaving the central passage free for the officiating priest, and an inner sanctuary containing a representation of the mystical sacrifice of the bull. In some cases there is proof that the sanctuary was separated chancel-wise from the body of the building by wooden rails. Presumably, the lateral platforms of which we found traces were continued up to the cross-walls seen by Hodgson; and these latter are to be thought of as screen-walls dividing nave from chancel.

Cumont, in his study of the existing remains of temples of Mithras, summarises their dimensions as follows:—

Breadth of nave, 4 ft. 3 in. to 13 ft. 9 in.	(Housesteads, 6 ft. 3 in.)
Breadth of aisle, 3 ft. 6 in. to 6 ft. 3 in.	( " 5 ft. 0 in.)
Height of aisle, 2 ft. 0 in. to 3 ft. 9 in.	( " 2 ft. or more.)

It follows that the Mithraeum at Housesteads was small, but by no means one of the smallest.

Near the centre of the nave, where three crosses are marked upon the plan, there were found three figures carved in coarse freestone. All were headless and much broken, and were lying face downwards. One is a male figure, clad in a short tunic, with bare legs and feet, and stands 'at attention' with clenched hands. It is twenty-eight inches high. The others are a pair of those torch-bearing satellites of Mithras which are so often found in his temples. Fortunately, the head of one of them was found a few feet away. A precisely similar figure was found in 1812 with the altars, and is now in the Blackgate. They stand with legs crossed, holding a torch, which in one case is lowered, in the other uplifted. The headless figure measures thirty-one inches, including a six-inch plinth, the other is thirty-eight and a half inches high. The latter has a pointed cap, long hair, a tunic, loose trousers, shoes, and over all a mantle, in fact the Persian costume in



FIG. 32.—SCULPTURE FOUND IN THE CAVE.

which Mithras is commonly represented. There is reason to believe that these genii were worshipped with him under the name of *Cantes* and *Cautopates* respectively,<sup>43</sup> and that as he was god of the sun in all his aspects, so they with their raised and lowered torches personified him as he is seen when his powers are at their highest and lowest at the summer and the winter solstice.

The worshippers of Mithras were not exclusive in their religion, and allowed the figures and altars of other gods to be dedicated in his temples, especially, Cumont notes, those of *Mars* and *Silvanus*. It is possible, therefore, that an altar dedicated to *Cocidius*, a local god identified on inscriptions with both those classical deities, which was



FIG. 33.—FIGURES OF TORCH-BEARERS FOUND IN THE CAVE.

found in 1898 at the west end of the Mithraeum, may have been set up there in ancient times. It is dedicated by soldiers of the second legion, serving apparently in garrison at *BORCOVICIUM* (see Mr. Haverfield's note, p. 277). It may be added that a similar and rather

<sup>43</sup> In a well-preserved temple of Mithras at Aquincum, near Buda-Pest, which the writer lately visited, four small altars were found built into the face of the aisle-platforms. All bear the name of the same donor. The upper part of one is missing. The others are dedicated to *Cantes*, to *Cautopates*, and to the Perennial Spring, *Fonti perenni*. The missing dedication may have been *Petrae genitrici*, to the Birth-giving Rock.

illegible altar, also dedicated to Cocidius by a soldier of the sixth legion, seems to have been found in the same part of the building in 1822.<sup>44</sup>

The altar dedicated *Marti et Victoriae* (also discussed by Mr. Haverfield), found near the beginning of the shorter drain towards the east end, may have strayed here from some neighbouring shrine. But dedications to Mars are not unknown in other temples of Mithras, and honours might appropriately be paid to the goddess of victory within the precinct of one who appealed to the soldier's devotion as *Deus Invictus*, the invincible god.

Our only clue to the date of the building is the fact that one of the altars found in 1822 was dedicated in the year 253. The other, judged by its lettering, belongs to the same epoch. We found a silver coin of Faustina the younger in clearing the floor. There was not much pottery—a few fragments of late plain 'Samian' bowls and of thin, black-glazed ware with pinched-in sides, types which point to the third century. Hodgson tells us that 'some fragments of vessels of red earthenware were found among the rubbish near the altar.'

The main part of the building seems to have been burned. We noted 'much burning to a somewhat high level, and large lumps of charcoal in central area.' The inner shrine may have escaped through being half underground.

## ARCHITECTURAL NOTES.

BY A. C. DICKIE.

### 1.—THE PRAETORIUM.

The architectural interest of the site is centred in the praetorium. Now that a careful and complete excavation has laid bare the whole of its remains, it is possible to study the design and history of this building in detail. The surviving masonry is of three different types :

(1) What seems to be the earliest is seen in the south wall, with

<sup>44</sup> See *Lapidarium*, 183, where Bruce argues from a comparison of Hodgson's account with that in Richardson's *Table-book*, III, 244, that this is the 'illegible altar' found at the point marked 4 on Hodgson's plan of the 'cave.'

its return-angles (fig. 34). It consists of good, large, well-set stones, squared on beds and joints, and pick-dressed on face, bedded without

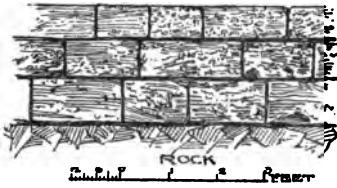


FIG. 34.

lime. Headers are used throughout, and run through the entire thickness of the wall. The same large and careful masonry appears in certain internal features, viz., the four angle-piers of the outer court, the piers of the interior gateway, and the piers between the doorways of the *sacellum* and the adjoining chambers. There is, however, some variety in the tooling, hammer-dressing, pick-dressing, and, in one case, sunk marginal-dressing, occurring side by side.

(2) A quite different, inferior and, probably later, type of masonry occurs at the north-west angle in the walls of rooms 11 and

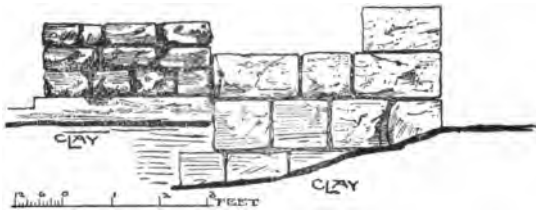


FIG. 34A.

12, and elsewhere. It consists of small, rudely-squared stones, measuring about six inches by nine inches on the face, set in lime and rudely coursed. Fig. 34A, representing the door-pier between rooms 8 and 9, with an early walling-up of part of the door-way, shows the two types of masonry side by side.<sup>45</sup>

From the north-west corner the small masonry continues only to the doorway at the north end of the inner court. The remainder of the north wall consists of large headers, laid without lime like those of the south wall. It is true that they are less carefully squared and

<sup>45</sup> It is unfortunate that the greater part of the west wall has been destroyed, even to its foundations; along most of its course only the clay bed and outer puddling survive. The fragment remaining at its south end is in the first or massive style, the fragment at the north, which breaks off at room 11, is in the second style of masonry. It cannot be said with certainty how the missing part (cross-hatched on plan) was built, but the fact that it was so systematically uprooted leaves little doubt that it was built of the same large headers as in its southern extremity, and that it was demolished in recent times when these large blocks were wanted for the quoins of farm-buildings. The north-west corner, which still rises nearly five feet above the rock, has probably survived because its small stones were not worth taking.

jointed than the other masonry of the first style, but the fact that such courses as survive were never visible from outside (the floor of the praetorium being at a lower level than the road on the north), may explain the less careful workmanship.

In the large plan of the praetorium (p. 210) no attempt is made to distinguish the masonry of the first and second styles, which are both shown in solid black.

(3) Walls of a third and much later style are distinguished on the plan by diagonal hatching. These are built with small stones without lime in courses averaging seven inches. The walls built to close the openings between the columns are all constructed in this way, and are evidently modifications of the original plan, made, perhaps, at some period when the building was used for domestic purposes.

To recapitulate, we have

- (1) Large stones, well-dressed and laid without lime.
- (2) Small stones, rudely dressed and laid with lime.
- (3) Small stones, rudely dressed and laid without lime.

Of the masonry of the third class it is unnecessary to say more. An examination of the two earlier styles leads to some interesting results.

It is improbable that the inferior work at the north-west corner, consisting of small stones laid with lime, can be contemporary with the fine massive masonry of the first style. How can we account for its presence?

No theory of destruction and subsequent restoration will fit the case. This is the best protected angle of the building, and the small masonry starts from the rock nearly four feet below the outer ground level. The angles in which the massive masonry has survived were more exposed, and ran greater risk of such destruction.

There are indications which point to a simpler solution. Reference has already been made by Mr. Bosanquet to the symmetrical plan and masterly setting-out of the praetorium as a whole, and to the preliminary labour which was expended in order to make possible the erection of an imposing building on a difficult site. The care and expense devoted to the masonry of the south wall, to the levelling-up of the slope, to the construction of a stepped platform at the east front, are reflected in the accurate levelling and careful paving of the outer court (marked 4 on plan). We recognize the



handiwork not only of an able designer but of skilful and thorough workmen. But on entering the inner court (marked 7 on plan) we are met by a complete contrast. The foundations of the piers at either side of the entrance are at different levels; the bases of the columns on the left are two feet six inches lower than those on the right; three of these column-bases are rude and debased imitations of the model-base, marked *h* on the plan; there is no trace of any regular pavement, and the rock cropping up in the northern half of the court has not even been levelled. The contrast is brought out in sections *A B* and *C D*.

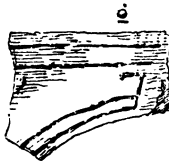
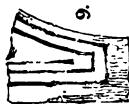
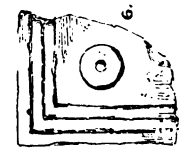
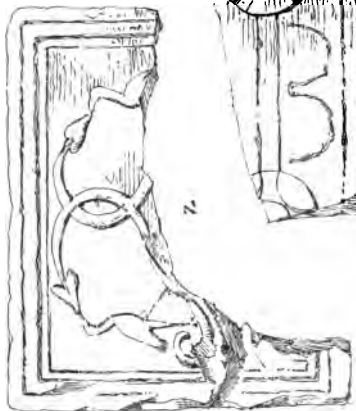
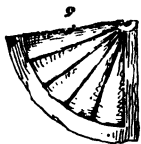
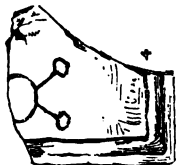
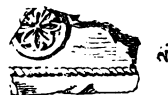
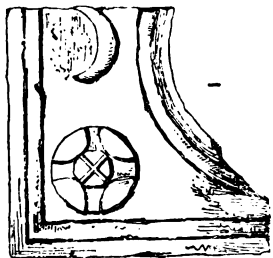
The relative positions of the first and second classes of masonry cannot be accounted for by the theory of restoration following destruction, unless it is argued that the whole of the walls (on the lines of which now stand the secondary building) were first entirely removed down to the rock. For many reasons this is unlikely. The evidence of the sculptured stones point in a like direction, and supports the conclusion that the original design was never completed. There is abundant proof that it was by the hand of a capable architect, and the building was commenced by skilled craftsmen. Soon after that commencement the work was interrupted and its later completion is plainly the efforts of unskilled builders, who followed on the original lines and failed to carry out the scheme in a worthy manner. Their clumsy attempts to copy the old models are shewn in the rude remains which are so out of harmony with the stone-cutting of their more able predecessors.

We may characterize the three classes of masonry as indicative of:—

- (1) A masterly beginning.
- (2) A hasty or incompetent completion of the original design.
- (3) Later modifications and additions interfering with the original design.

## 2.—SOME ARCHITECTURAL DETAILS.

The illustrations on p. 267 show practically all the carving in relief discovered during the excavations. Nos. 1, 4, 6, 7, 9 and 10 are fragments of door or window heads, and give a good idea of the treatment of these features. The openings are invariably semi-circular-headed, cut out of a single stone from six to eight inches



SCALE OF INCHES

*Miss. Drawn by  
A. C. DODD & SONS.  
Sydney*

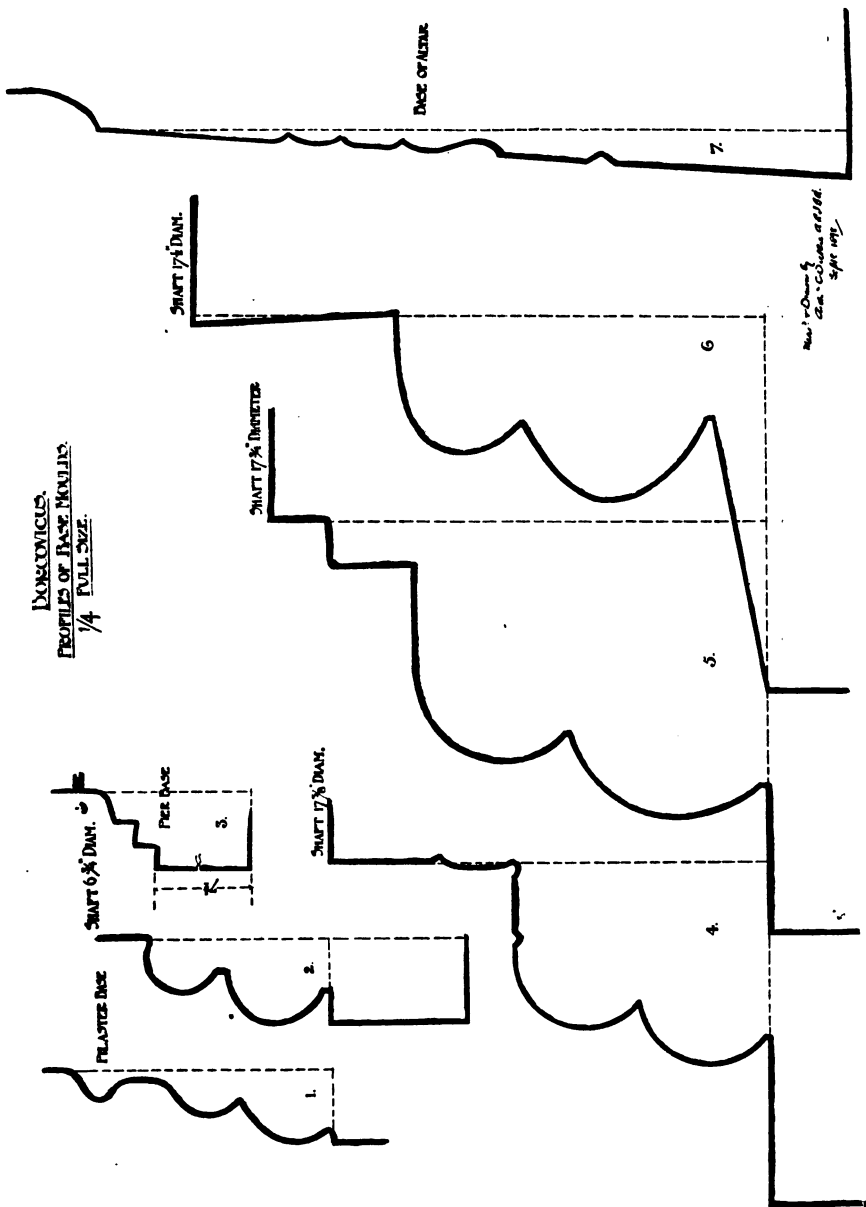
thick. The face is often decorated and is usually surrounded by a low marginal moulding. They show considerable variety in design, and are exceedingly interesting. No. 1 is one of several which have a crescent in the centre, and in the spandril an effective boss decorated with a cross within a circle. No. 4 has a rude figure of uncertain meaning, and no. 6 a simple raised circle in the spandril. No. 7 is the most complete, and also the most interesting. The symmetrically-grouped birds and snakes are cleverly designed, and drawn with considerable vigour. One admires the skill which has made the bird on the left so life-like, although the tiny figure is only roughly blocked out in the rough sandstone and no detail whatever is shown beyond a faint indication of the fold of the wing. This stone was found built into the south-west angle of the small projecting annexe at the west end of Block II (plate XIX).

Nos. 2 and 3 are fragments with marginal rope ornaments, the former probably part of an inscribed slab, the latter of a coved tombstone. On the other stones here figured the marginal ornament consists of incised lines, which are really a debased form of the flat rounded moulding so generally used in the top members of cornices. The variety of the returns and stops of these incised borders is illustrated by 7, 9, and 10.

#### PROFILES OF BASE-MOULDS (see p. 269).

1. From a small pilaster-base lying near the south gate. 2. From one of the many small column-bases found in different parts of the camp (never *in situ*), all about six inches in diameter. 3. From a rude pier-base, one of a somewhat numerous class. 4, 5 and 6 gives the mouldings of three of the bases in the praetorium. They are marked *h*, *i* and *j* respectively on the plan. The base and plinth are in one stone. No. 4, by far the best of them, is represented also in a photograph (fig. 35). It is worked sharp and clean to a delicately-designed profile, consisting of two tori above a square projecting plinth. Noticeable peculiarities are the great projection of the upper torus, and the V-shaped sinkings on it and the drum of the column. The whole is in excellent preservation, and shows unmistakable signs of having been turned in a lathe. The effect of the double torus without any fillet,

**EXHIBIT C**  
**PROFILES OF BASE MOUNTS**  
**1/4 FULL SIZE**



and of the great projection of the upper member—so strikingly suggestive of the Early English base—is very unusual and quaint, and, although it may not be altogether happy, yet in this instance is simple and refined, and immediately associates itself with design and workmanship of a high standard. The treatment recalls the shaft-beading so general in Anglo-Saxon work.

Nos. 5 and 6 are fair examples of all the other bases in the praetorium, which are evidently more or less unsuccessful imitations



FIG. 35.—COLUMN-BASE IN THE INNER COURT.

of 4. 5 is more carefully worked than 6, but is not turned like 4, and is slightly different in section. 6, like all the other bases, is exceedingly rude, and plainly betrays the hand of an unskilled workman, who, in attempting to imitate his model, has produced a curiously barbarous result. It is difficult to suppose that the model and the copies can be contemporary work. This variation of form and workmanship, like other irregularities in the details of the praetorium, demands an explanation, which may best be furnished by supposing that the work of building it was interrupted and afterwards resumed under less favourable conditions.

No. 7 is from the base of an altar found lying outside the south gate. Its mouldings are shallow and expressionless.

COPINGS, CORNICES, AND OTHER MOULDINGS (see p. 272).

These show considerable variety in design and workmanship.

Nos. 8, 9, and 10 are pier-capitals which were found lying in line inside the camp near the south-west tower. They were quite near the surface, and had probably come to light in earlier excavations, and been buried and forgotten.

Of these 8 and 9 are moulded on three sides only, and are caps of attached piers measuring thirty-four and a half inches by twenty-eight inches, and thirty-four inches by twenty-six inches, respectively, while 10 is moulded on four sides, and measures thirty-six inches by thirty-four inches. All three are well designed and worked, and may fairly be classed with the fine base, no. 4, on p. 269.

The shallow sinking on the face of the upper member forms part of almost every moulding found in the course of the excavation. In the best examples this feature is carefully worked to a low segmental section sunk in the flat, while in ruder examples it degenerates into two rows of incised lines.

No. 11 is the cap of a detached pier, twenty-five by twenty-seven inches. It has no two sides alike in section, and on one side the lower member is omitted altogether. It is a very clumsy piece of work, and may rank with the ruder series of column-bases (5 and 6 above.)

Nos. 12, 13 and 14 are selected specimens of the many coping-stones found all over the camp. The majority are well worked and of good design, though there are plenty of rude examples.

SECTIONS OF CAPITALS AND COPINGS (see p. 273).

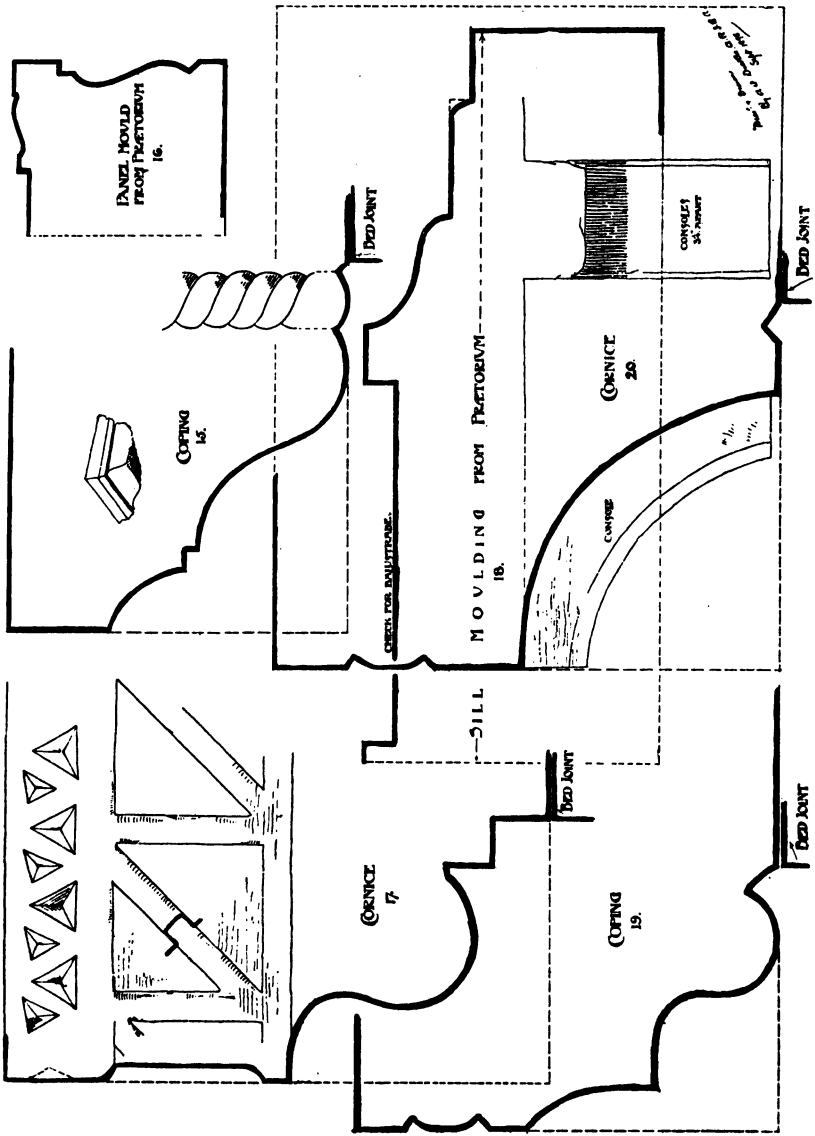
15 and 19 are further specimens of coping-stones. The former has a rope-pattern enrichment on the soffit at the termination of the ogee, and the latter exhibits the 'quirk' moulding often found in Roman camps.

16 is a beautifully-worked panel moulding on a slab which may originally have been intended to bear an inscription, but has been used as a hearthstone in room 8 of the praetorium.

17 and 20 are cornices. 17, found lying at the east gate, is exceed-



DORIC CORNICES  
 PROFILE OF MOULDINGS FULL SIZE.





ingly interesting as showing the zig-zag, the triangular sunk ornament and the 'quirk' moulding, all of which are characteristic of Romano-British architecture, though usually associated with Norman work.

20 is more rudely worked. It exhibits a row of consoles placed three and a quarter inches apart. It was found in the inner court of the praetorium, and may have formed part of the cornice above the colonnade.

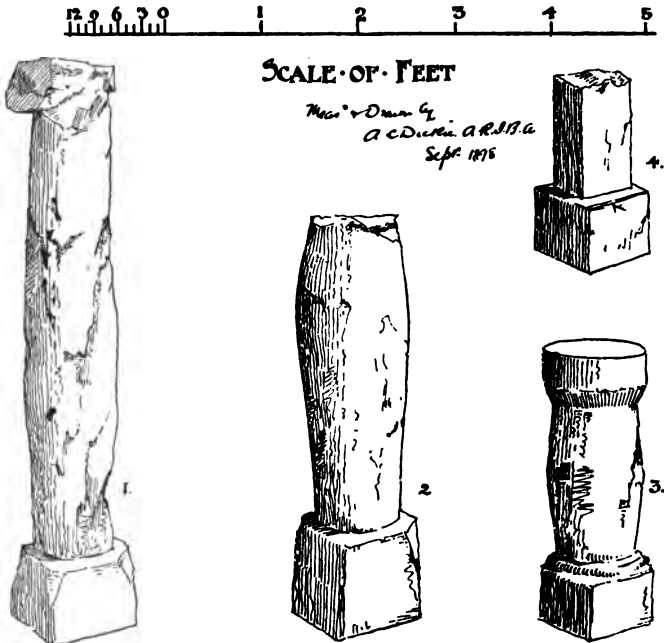


FIG. 36.—COLUMN SHAFTS.

18 is a section of the sill-moulding at the entrance to the *sacellum* (praetorium plan, p. 210, *m* in room 10). It probably served, as has been pointed out, as a base to a low balustrade which screened the room from the inner court.

The columns discovered are practically all of one class (fig. 36).

No. 1 is the most complete of the larger columns found within the camp. The shaft is forty-nine inches high, the base nine and a half inches, the broken cap five and three-quarter inches, all in one stone. There is no indication of any carving in the cap, and the base is square with diagonal chamfers on upper arrises.

No. 2 is a fragment of similar form.

These two, found in block VII and block I (plan, p. 300) respectively, are fair examples of many such shafts, all equally rude, and varying considerably in size, which occurred in the soldiers' quarters. In all probability, they originally served as verandah supports. The stumps of such pillars are to be seen in the pavement outside the barracks at OILURNUM. None as found *in situ* at Housesteads. Some were built into walls, others lay inside the small rooms of the barrack-blocks.

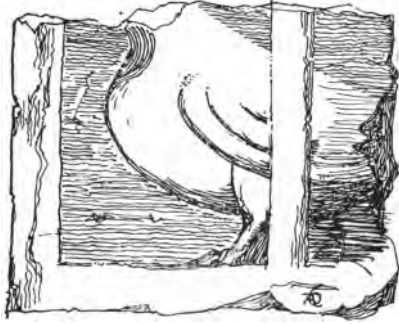


FIG. 37.

No. 3, found in the rubbish thrown into the *sacellum* after the removal of the back-wall at some recent date, is thirty-five and a half inches high, all in one stone. There are sunk dowel-holes for iron fastenings in the shaft. It is a baluster closely resembling those used in windows in Anglo-Saxon times.

No. 4, found lying at the south gate, measures seven inches on the side, and is the only square shaft found in the excavations.

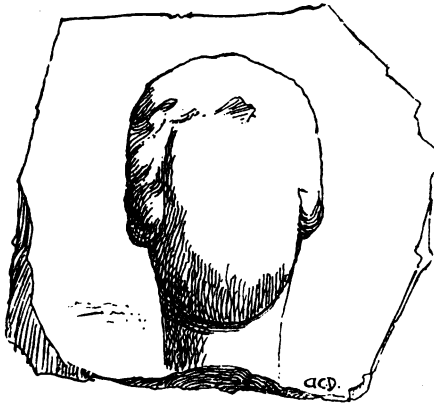


FIG. 38.

A number of shafts similar to 1 and 2 have been brought from various parts of the camp into the praetorium.

Fig. 37 is a small fragment of low relief carving, representing what seems to be a bird in a cage, from the indication of a vertical bar dividing the panel. It is carved in freestone and is well modelled.

Fig. 38 is the very much decayed head of a small figure in low

relief. The head only measures  $2\frac{1}{2}$  inches, and the features have entirely disappeared, and a faint indication of the modelling of the hair is the only detail which remains.

Fig. 39 is a fragment of a column from the praetorium, and is unlike the other examples, in so far as it has a square base, worked on

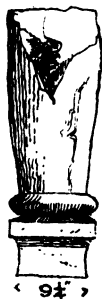


FIG. 39.

the same stone as the column. It is very rudely cut, and measures  $9\frac{1}{4}$  inches square at base and 2 feet 8 inches high over all. The diminution under the torus is unexpected and there is just the possibility that it is a cap. Either theory seems possible in such curiously fashioned detail as this excavation has revealed. If the latter is correct it is the only example found within the camp and is therefore of special interest.

This completes my notes on the sculptured stones, and a more curiously assorted lot cannot well be imagined. Such an unusual mixture of forms familiarly classified as Byzantine, Anglo-Saxon, and Norman, occurring in Roman times seems scarcely credible.

The character of the whole work is strongly Byzantine, and except for those traits of origin which lurk in all architectural detail, there is an entire lack of pure Roman feeling. Here is a style of architectural detail (existing at a time when Roman architecture was still pure), similar to what only became known in the East, centuries later, and incorporated in it are features, usually attributed to Anglo-Saxon and Norman times. This peculiarity has been noticed in the remains at other Roman camps, both in this country and in Germany, and also in a less marked degree at Silchester and Bath, as shewn in the works of Mr. St. John Hope and Mr. Fox. Mr. Fox in his descriptions of the remains at URICONIUM and Leicester gives sections of mouldings, consisting chiefly of caps and bases of columns, which show great variety and individuality, but which cling more closely to their classic origin than those found at BORCOVICIUM and the other camps on the Wall.

There is little doubt that architectural detail of the Roman occupation had a character distinct from pure Roman work, and this is most strongly emphasized in the BORCOVICIUM remains. That this Roman provincial style, at its best, was one of distinct individuality

it clearly shown, and its subsequent decay (inevitable in these unsettled times), can be as surely traced in the debased later imitations. Without a far wider knowledge than it is possible to get of Roman provincial architecture, as it existed in the wealthy cities of Gaul, and the great military stations of Germany, it is difficult to establish the exact relationship between the strictly classical method pursued in Italy and the widely divergent styles which recent discoveries proved to have existed in Britain.

## THE INSCRIPTIONS.

BY F. HAVERFIELD.

The excavations at Housesteads produced nine inscribed stones, of which seven were found in the fort and two in the Mithraeum at the bottom of the hill. I have examined these inscriptions, some on the ground where they were discovered, and all in the museum at the Chesters, where they are now permanently preserved. I have also had the advantage of squeezes, readings, and help from Mr. Bosanquet. The texts were published provisionally by me in the *Proceedings* of this Society, vol. viii. (1898) pp. 208, 253.

1. Altar (centre figure, p. 278), thirteen inches high by eight inches broad with one inch letters in the first line, and three-quarter inch letters in the other lines. Found lying face downwards on the flagged floor of a room in the south-west part of the fort (block VI.).

*Deo n(umini?) Vit(e)ri Aspuanis* or *As-*

DEO

*puavis pro [se] et suis vot(um) sol(vit).* 'Aspuanis

HVITRI

pays his (or her) vow for himself and his to the God Vetus.' The god Vetus, or Vitus, also found

ASPVANIS

in the plural, Di Viteres or Veteres, had many

PROETSVIS

worshippers in the military posts of North Britain, but none, as it seems, elsewhere in the length and

VOT

breadth of the empire. Either we have here a local

SOL

worship, British or imported German, or we have the 'old gods,' the pagan deities who were being

displaced by christianity. The dedications have mostly the marks of a late date which would agree with the latter hypothesis.

The letter H is probably a late form of N, produced by a gradual approximation of the cross stroke to a horizontal position. It occurs also on two other dedications to the deity here worshipped, (*Lapidarium Septentrionale*, 280, *C.I.L.* VII, 502*b*, and *Ephemeris*, VII, 1087), and, with more resemblance to an ordinary N, on a third (*Lap.* 312, *C.I.L.* VII, 502*a*). It is singular, however, that no 'Vetus' dedication actually has N prefixed for *numen*, and that H for



FIG. 40.

N, though attested in other lands, is otherwise uncommon among Romano-British inscriptions. The explanation here given must not, therefore, be taken as certain.

I have been unable to trace the name *Aspuanis* (or *Aspuavis*) elsewhere. It is disowned both by Celtic and by Germanic philologists, nor do even the students of Pictish claim it.

The omission of SE in line 4 is a mere error.

2. Altar (first figure, p. 278), eight inches high by four-and-a-half inches wide, with small letters. Found in a small closet, in the same block as the preceding altar, but in another part of it.

DEO | VETERIB | VS VOTV | M, *Deo veteribus votum*; 'Dedicated to the God Veteres.' The stone cutter has made a strange blunder between the singular and the plural, between *deo veteri* and *dibus veteribus*. I can quote no parallel.

3. Small red sandstone altar (third figure, p. 278), seven inches high by four inches wide. Found lying loose on its face on a flagged floor inside (block XIII) in the north-east corner of the fort. It is nearly illegible, as such small altars often are, and the first line is defaced. ΔIC Δ CALVE | ÇER; no interpretation of this is possible.

4. Two fragments of what was evidently once a fine slab with a cable border, bearing an imperial inscription which commenced with letters three-and-a-quarter inches high; two other pieces of the slab were also found, but uninscribed. Found lying loose in the Prætorium. The chief fragment contains a cable border, and below a bit of the first line—IM—the M being imperfectly preserved. This doubtless signifies *im(perator)*. The other fragment contained only part of one letter and what letter is uncertain. The stone seems to have been of the type which recorded building or restoration.

5. Building stone, eighteen inches long by fourteen inches high by three inches thick, with a rough undressed surface on which a *graffito* has been picked with a pointed instrument, in two lines of letters two-and-a-half inches high in the first, and three inches in the second line. The first two letters have a double row of pickmarks. Found loose just below the turf and above the south wall of the building N.E. II. IMPE | RATOR *Imperator*, probably a passing whim of a workman.

6. Similar fragment, nine inches long by seven-and-a-half inches high by three-and-a-half inches thick, with two lines of letters about three inches high, picked like the preceding, but ruder. Found at the same time and place as the preceding, but one foot deeper in loose soil, AVR SCAL. At first I thought this might be part of *Aur(elius) Cæ(sar)*, the other letters having been on a now lost stone. I now incline to explain *Aur(elius) or Aur(elianus) scal(psit)*, 'Aurelius cut

this,' another workman's whim. Certainly I should not explain, as has been proposed, 'the century of Aurelius Caius,' and I quote the version only as a warning.



FIG. 41.

Though this and the preceding stone are in many respects similar, they do not seem to belong together.

7. Building stone, eighteen inches long by eight inches wide by seven inches deep. Found in the south wall of the praetorium, near

its south-west corner. Some letters have been picked by a pointed tool along two sides of its face, but their meaning is unascertainable.

8. Altar (fig. 41), eighteen inches high by nine inches wide, with small letters, difficult to read. Found lying loose in the western part of the Mithraeum. It had been, doubtless, overlooked when the Mithraeum was excavated in 1822, and its original position cannot now be fixed. It may have strayed to the Mithraeum from some shrine near it.

I O M

EDEOCOCIDI

GENIOQHVIS

LOCIMILLEG

IIAVGAGVES

INPRAESIDIO

*I(ovi) o(ptimo) m(aximo) et deo Cocidi[o]  
genioq(ue) hui(us) loci mil(ites) leg(ionis) ii.  
Aug(ustae) ... in praesidio, v(otum) [s(olvunt)]  
l(ibentes) m(erito).*

V S L M

‘To Juppiter Optimus Maximus and Cocidius and the genius of this site, the soldiers of the Second Augustan Legion ... in garrison, pay their vows.’ The altar was erected by soldiers of the legion stationed at Caerleon (ISCA SILURUM) in Monmouthshire, temporarily in garrison at BORCOVICIUM. Cocidius is a native god, much worshipped by the troops quartered in North Britain and usually combined with Mars. The text of the inscription is unfortunately not quite certain. In 3, I think the cutter put *huiis* for *huius*. In 5, the letters after *ii. Aug.* are undecipherable to me; the penult letter is E, the last R or S, probably S. *Agentes*, with the aid of tied letters, would be a conceivable reading, and would make sense with *in praesidio*, ‘serving in garrison.’

9. Upper portion of an altar, seventeen inches high by twelve inches wide across the inscribed portion. Found lying loose in the eastern part of the Mithraeum. It had been, doubtless, overlooked in 1822, like the inscription just described, and like that may have strayed to the Mithraeum from elsewhere.

MARTI

ETVII

TORIAE

*Marti et Vi(c)toriae ...*

‘Dedicated to Mars and Victory ...’ The lettering is poor and may be comparatively late; in particular, the centre angle of the M is not brought down as low as the two upright strokes.



## LATE BUILDINGS AT THE SOUTH GATE.

In late Roman or more probably in medieval times some remarkable alterations were made in the eastern tower of the south gate. A round kiln was constructed in the guard-chamber, the doorway was blocked up and a new doorway broken through the south wall to connect the kiln with an oblong building which projects at right angles from the south side of the camp.

Dr. Bruce, who saw these remains when they were completely excavated, supposed that some mosstrooper had converted 'the guard-chamber and contiguous buildings' to his own uses, implying that the walls at any rate of the outer building were Roman. 'The byre in which he folded his cattle at night, the kiln in which he dried his unripened grain, and the lower part of the flight of steps by which he ascended to the little fortress that was his own habitation, may all, though perhaps with difficulty, be distinguished.'

Beyond clearing out the kiln to obtain measurements, no work was done in 1898, but as conflicting opinions have been expressed regarding its date, and as an intrusive structure of the same kind appears in Block VIII within the camp, it seems worth while to describe the kiln and projecting chamber in detail.

The kiln is tolerably well built, and has the form of an inverted cone, three feet in diameter at the bottom. Its sides and rough pavement are much reddened by fire. Hodgson found in it the débris of an upper floor, constructed of flagstones covered with a cement of lime and pounded brick,<sup>45</sup> which had fallen in, and outside the door, at A on our plan, 'a lintel of oak very much guttered with decay, especially at each end,' measuring five feet four inches, by six inches by six, which had probably formed the top of the doorway into the kiln. Hard by was an oven, which is described as vaulted and having 'a sandstone bottom very much burnt, and sandstone sides, and a passage for air between it and the kiln.' Remains of it are perhaps recognizable to the east of the kiln, in the angle formed by the gate-tower and camp-wall.

<sup>45</sup> Cement of this kind, Mr. Fox tells me, was in use through the Middle Ages; it does not therefore prove anything as to the Roman date of the construction.

The oblong room, measuring twenty-seven feet by twenty-one, into which the kiln faces, is built against the south wall of the tower, its west wall being flush with the eastern jamb of the gate. Its walls, from three to four feet thick, are pierced by three splayed loopholes, fifteen inches high, eighteen wide within and six without. Outside the east wall there remains part of an outer stair, not shown on the plan, which partially blocks the loophole on that side and may therefore be a later addition. It attests the existence of an upper storey, which no doubt communicated with the drying-room over the kiln.

The simplest and most satisfactory explanation of this group of remains is to go further than Dr Bruce and to suppose that we have here a medieval homestead, built of Roman stones and consequently presenting a general resemblance to late Roman work. In any case it is difficult to believe that the kiln can be Roman. It bears too close a resemblance to the kiln in the southern half of the granary (Block VIII) which seems to be contemporary with the demolition of

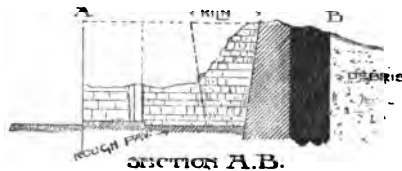
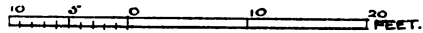
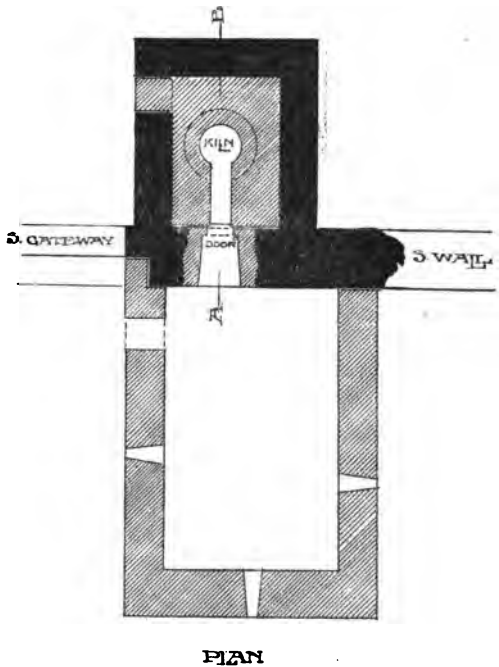


FIG. 42.—PLAN AND SECTION OF GATE-TOWER (LATER STRUCTURES IN HATCHED LINES).

consequently presenting a general resemblance to late Roman work. In any case it is difficult to believe that the kiln can be Roman. It bears too close a resemblance to the kiln in the southern half of the granary (Block VIII) which seems to be contemporary with the demolition of

the western end of that building, and the construction of the rude steps at its eastern end, and was pronounced by Hodgson, who excavated it, to be of modern construction and probably 'intended for a kiln for drying malt, or for some such purpose.' The juxtaposition of kiln and oven recalls the somewhat similar discovery made by Mr. Glasford Potter on the west side of the south gate at AMBOGLANNA ; there the kiln was outside and the oven inside the guard-chamber. (*Arch. Ael.*, 4to. IV, 74.) The foundations of a kiln not unlike ours were found east of the east guard-chamber of the south gate at AESICA.<sup>46</sup>

At first sight it seems a remarkable coincidence that in three different camps kilns should have occurred in or near the south gate. But, when the plans are compared, it will be found that there is very little real correspondence in the three discoveries. Nor have these kilns, at any rate the large ones at Housesteads, much in common with the ovens which were found in the thickness of the rampart at Birrens. The decayed lintel found by Hodgson at the door of the kiln by the south gate is a strong proof that the building had been in comparatively recent use, for the alternately dry and damp soil of the hill-top is very unfavourable to the preservation of wood-work, and hardly a trace of it was found in the excavation of the camp, although it had survived in abundance in the peaty soil of the valley below.

Even if we admit the kiln to be medieval or recent, it is possible that the projecting rectangle, and the door in the south wall of the guard-chamber may date from Roman times. The good construction of this doorway, with its massive jambs, is certainly in favour of this view, although the jambs might have been brought bodily from some other building. In this case the rectangular building might be regarded as a flanking tower, such as it would not surprise us to find in a Roman fortress of the third or fourth century. Here again we are met by difficulties. The *eastern* half of this gate was found built-up ; it would have been more natural to close up the western portal, and keep the entry immediately under the flanking tower, had one

<sup>47</sup> Near Heddon-on-the-Wall 'the remains of a circular chamber appear in the substance of the wall, having a diameter of seven feet, with a small aperture leading out of it in a slanting direction.' (Bruce, *Handbook*, 1895, p. 55.) Was this a structure of the same kind ?

existed. Again, it is improbable that special defensive works should have been erected at this gate, which was neither the chief entrance to the camp (since the long late building on the north was allowed to block it), nor the most exposed to attack. Moreover the loopholes in its walls are too low down (breast-high from the outer ground-level) to have been intended for defence.

#### MINOR OBJECTS FOUND IN THE EXCAVATION.

It remains to deal briefly with the minor objects.

*Stone.*—A flint arrow-head, probably pre-Roman. Three flint flakes, perhaps recent, and a gun-flint. A slate palette; a polished egg-shaped toy or amulet of red and white veined agalmatolite (identified by professor Lebour), foreign to the district, length  $1\frac{1}{4}$  inches, found in a barrack-room, VI, 2. Numerous querns, fragmentary for the most part, and presenting only the usual types. A whinstone mortar

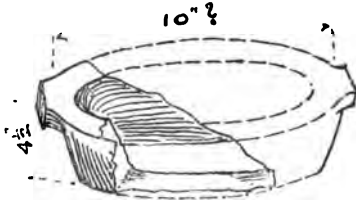


FIG. 43.—WHINSTONE MORTAR.

(fig. 43); a large series of discs, mostly made out of broken roofing-slates, and small balls, probably used in games; larger balls and flat slabs used for rubbing and pounding; thirty hones and whetstones. Professor Lebour, who has been so good as to examine this series of worked stones, tells me that the material is, in every case, sandstone, grit, or whin, such as are found in place in the immediate neighbourhood of Housesteads, or could be picked up as loose fragments. 'Some may have come out of the glacial boulder-clay or later river-gravels, but all are derived from local rocks.'

*Jet* was comparatively abundant, as is usually the case on Romano-British sites. What appeared to be small unworked pieces occurred, suggesting that the raw material was worked up into beads and pins on the spot. Two pins of the usual type with faceted heads, one finger-ring with bezel, three spindle-whorls, a large pierced ball, eleven beads, and parts of six armlets, the largest of which had originally

had an opening 3 inches in diameter, the smallest only  $1\frac{3}{8}$ . Part of a large armlet of *Kimmeridge shale*, the opening  $3\frac{1}{4}$  inches in diameter, found near the baths by the Knag-burn.



*Silver*.—Openwork brooch of 'late Celtic' design, the pin detached but found with it, from the praetorium, room 3 (fig. 44).

*Glass*.—Neck and one handle of a delicate dwarf-vase. Part of an

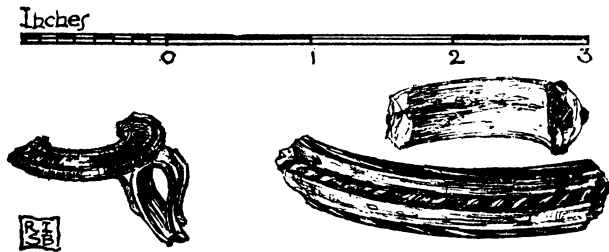


FIG. 44.—SILVER BROOCH, GLASS VASE, AND ARMLET.

armlet with blue and white rope-pattern, original diameter of opening  $2\frac{3}{8}$  inches. This, and two of the jet armlets described above, were found in a secondary clay floor of the barrack-room, VI, 2. The other examples of jet and a number of fragments of similar armlets in greenish-white glass paste were found in and about the other 'barrack-blocks.' Their diameter is in some cases so small that they can only have been worn by women or children.<sup>47</sup> The finding of these trinkets raises the question whether during part, at least, of the Roman occupation of the fort the soldiers' families may not have lived with them in barracks.

Fragments of square bottles were frequent in the lower *strata*; I noted no instance of their occurrence at the higher, approximately fourth-century level. On the other hand, window-glass was found at all levels, and in all parts of the camp, and must have been in general use up to the last; there could be no greater mistake than to speak of it as a rare luxury. Among the finer glass-fragments is part of an amber-coloured bowl, of a type familiar in the south of England. The

<sup>47</sup> The internal diameter of the largest was 3 inches, of the smallest  $1\frac{3}{8}$ .

typical first- and second-century pillar-moulded bowl did not occur, nor the beaker with cut ovals, characteristic of the late third and early fourth centuries ; but there were several fragments of the cylindrical cups of white glass, the common trade-goods of about 300 A.D., which found their way far north of the Roman frontier, and appear in barbarian graves in Denmark and in eastern Scotland.

Part of a signet of blue glass-paste, representing Victory. Twelve beads, all of familiar types.



FIG. 45.—BRONZE LID WITH SUNK ORNAMENT (*full size*) RESTORED.

*Bronze.*—Fig. 45 represents the design, in sunk-work that was originally filled with coloured enamels, of a bronze lid found in the north portico of the outer court of the praetorium. The art of enamelling in colours, originally a special possession of the Celts, was practised in many parts of the Roman empire, and the design before us with its vine-pattern and ‘reciprocal’ wave-ornament is Greco-Roman, not Celtic.

Another very fine specimen of Roman provincial enamel work, unfortunately so much injured that it has not been found possible to reproduce it, was found in the chink of a wall in a barrack-room of block V., where apparently it had been concealed by the Roman owner. It is a slightly convex plate of bronze,  $2\frac{1}{2}$  inches in diameter,

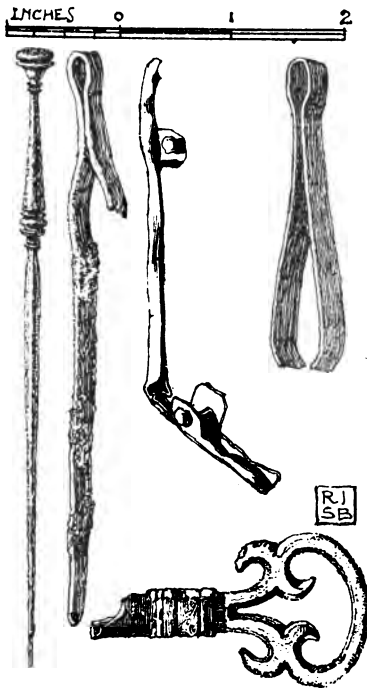


FIG. 46.—SMALL BRONZES.  
(The second object from the left is of iron.)

furnished behind with a stem for attachment to a backing of leather, and decorated in front with a minute mosaic-like design in four colours, blue, red, green, and white, which for the most part are still vivid. The round central field,  $1\frac{1}{4}$  inches across, is divided into a chess-board of red and blue squares, which diminish in size as they approach the circumference, so that with a little distortion the eight rows of eight squares are fitted into the circle. Each of them is sub-divided by minute white squares placed quincunx-fashion, five on each red and thirteen on each blue square. Round this principal field are two zones, the inner of red and blue, the outer of green and blue

squares, the blue chequered as before with white. These mosaic ornaments, not uncommon in the northern province of the Roman empire, were made by a process still used in the Venice glass-works. Thin sticks of glass of the required colours are grouped in a bundle the section of which would give the required pattern, and fused together. The rod thus obtained is heated and drawn out, so as to reduce its thickness without changing the pattern. Then the workman cuts thin sections from several such rods and arranges them mosaic-fashion. In this way the most microscopic chequer-work of the ornament before

us could be executed with square sections cut from only four rods, two plain and two particoloured. A very similar disc, found with *fibulae* and other ornaments at Pont-y-saison in Chepstow park, and now in the British museum, may furnish an indication of date; the *fibulae*, as I learn from Mr. Reginald Smith, are of the Brough type assigned by Dr. Arthur Evans to the period about 200 A.D. Smaller discs with similar chequer-work are figured in Jacobi, *Saalburg*, Taf. lxxviii.

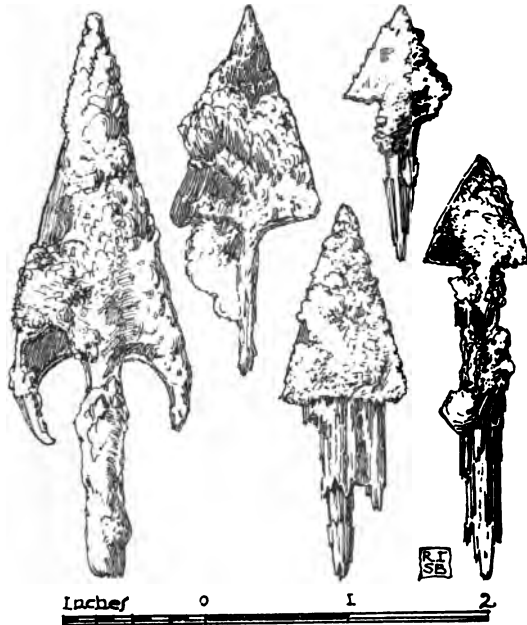


FIG. 47—IRON SPEARHEAD AND ARROWHEADS.

Some smaller bronzes are shown in fig. 46. They are: a pin with golden-yellow patina from a trial-trench in the valley south of the fort; a pair of tweezers from later clay floor in room 9 of the praetorium (and a larger pair made of iron for comparison); a strip of bronze mounting, with two rivets, apparently an edging for the rim of some leather article such as a saddle, from room 11 of the praetorium—similar pieces were found elsewhere; and an openwork key-handle—two specimens found.



Two gilded *fibulas* of cross-bow type ; one from the earthen rampart opposite N.E. angle of block XVIII.

Fragment of drapery from a statuette.

Sword-chape (*cf. Arch. Ael. x, p. 258*).

Fragments of strainers and other vessels. Conical steelyard weight, found immediately above the drain outside the N.E. angle-tower.

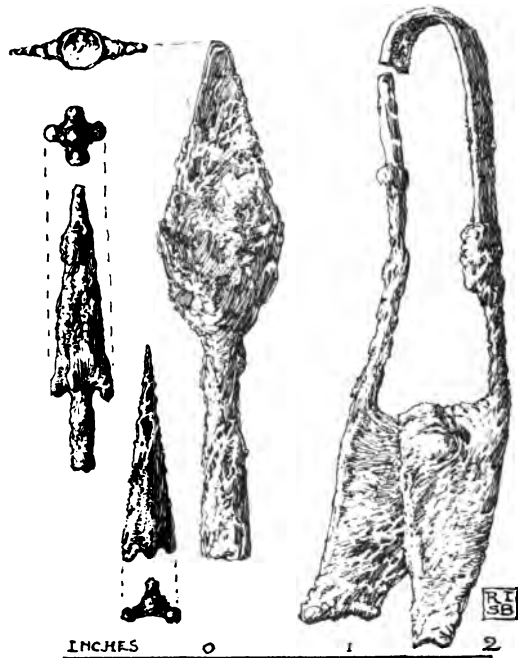


FIG. 48.—IRON SPEARHEAD, ARROWHEADS, AND SHEARS.

Wire armlets, various rings and studs and rivets ; a strip of thick wire bent to form a 'dress-fastener,' the ends hammered flat and crossed ; scraps of waste from a furnace.

*Iron.*—The find of over 800 arrowheads in the praetorium has been described. Specimens of them are shown in figs. 16 and 47, and should be compared with two very different arrowheads in fig. 48, which were found in other parts of the camp, those from the praetorium have

flat points quite roughly hammered into shape, but these others are beautifully formed, one quadrangular, the other triangular in section (cf. Jacobi, *Das Römerkastell Saalburg*, Taf. xxxix, 31).

A spearhead with unusually long barbs, now bent inwards (fig. 47), was found outside the north wall of block I, near the surface. A smaller spearhead (fig. 48) and two larger ones.

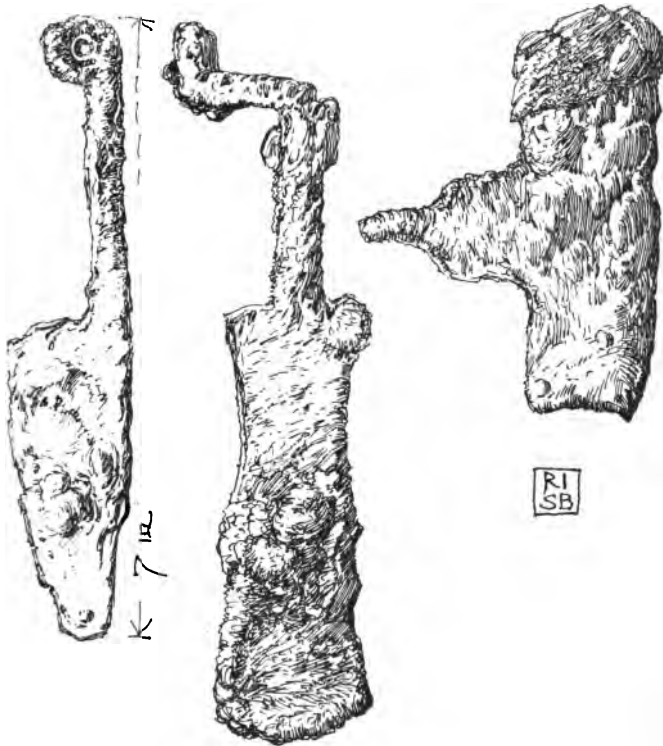


FIG. 49.—IRON KNIFE, KEY, AND TOOL OF UNKNOWN USE

(Scale, about 1 : 2.)

A pair of shears (fig. 48, p. 290), an axe-hammer, a wedge, a pair of tweezers (fig. 46), and a series of seven knives which deserve a detailed description.

The largest is a regular cleaver (like Jacobi, *op. cit.*, Taf. xxxvii. 2), with a blade  $5\frac{1}{2}$  inches long and 3 inches wide ; the handle is hollow,

$3\frac{1}{2}$  inches long and  $1\frac{1}{2}$  inches in diameter, with a rivet through it and traces of wood preserved inside. The next in size has a blade 5 inches by 2, and a long tang with traces of wood on it. The next, slightly smaller, shows remains of a bone or horn haft adhering to the tang. Another (fig. 49), of the same size as the last, has a tang ending in a ring. Two others are between  $6\frac{1}{2}$  and 7 inches long, the seventh somewhat less; the blade of one of them expands from  $\frac{7}{8}$  inch near the haft to  $1\frac{1}{2}$  inches and is then tapered to a sharp point from both edges. Most of these knives were found in or near the barracks.

Several keys, one of which is shown in fig. 49. The object drawn to the right of it may perhaps have been used as a curry-comb; it is an oblong and slightly curved plate to which a handle was fitted at one side.

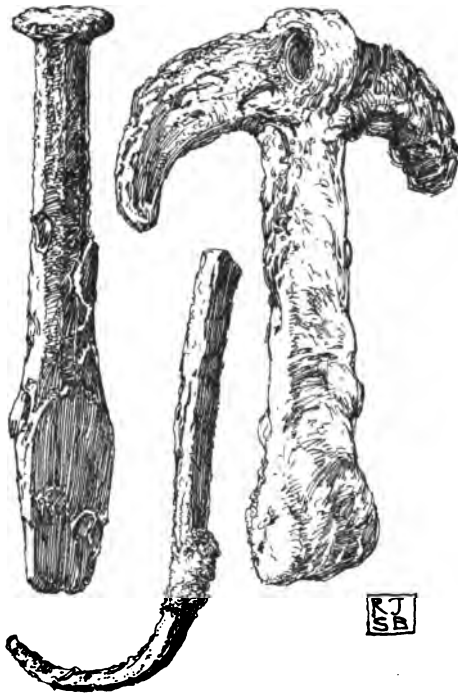


FIG. 50.—IRON CHISEL, HOOK, AND ANCHOR-LIKE OBJECT.  
(Scale, 1 : 2.)

Fig. 50 shows a mason's chisel with octagonal shaft, found at the base of a late partition-wall in block I, a hook found with numerous nails and other scraps of iron in room 12 of the praetorium, and an anchor-like object with a projecting loop on one side of the stem, the use of which I cannot divine.

Six horse-shoes; it is probable that some of them are Roman. Two, both small, were found low down in block IV. The slag and other traces of iron smelting observed in the same region have been discussed above (p. 241).

*Styli* (pens), nails, fragments of various tools, rings and other small objects of iron were found in considerable numbers.

The following were found together in the smaller cistern south of block XVIII :—2 *styli*,  $4\frac{1}{2}$  and 4 inches long, and a half of a third ; pair of shears (fig. 48) ; staple or holdfast,  $1\frac{3}{4}$  inches long ; 2 nails,  $4\frac{1}{4}$  and  $3\frac{1}{4}$  inches ; knife,  $5\frac{1}{2}$  inches ; broken tool, butt quadrangular in section,  $3\frac{3}{4}$  inches.

## THE POTTERY.

## INSCRIBED POTTERY.

(a) *Amphora-handles found inside the fort.*

1. F · SCI...

NIAN...

2. IVNI · M

ELISSI · P

## (b) 'Samian' found inside the fort.

3. [L]VCINVS F (fig. 53, p. 295) in large well-formed letters on a flat base without the usual boss. The ware is clear brick-red in the break, the surface smooth dark-red with less metallic lustre than most of the Samian here. Found on N. side of turret between S. gate and S.W. angle, in foundation clay.

4. GENIALIS · F, small well-formed letters on a bossed base.  
Found near N.E. drain.

5. QUINT .. faint, on bossed centre of a plate.

6. ATTIA .. faint, on bossed fragment.

7. PRIM ... on bossed fragment, found in block IV., at same level as coal and slag.

8. MAR . . . . on bossed fragment.

9. ...TALIS F, on flat centre ; dull red ware, much like 3, and very thin.

10. SEM . . RI M, bossed, with outer circle of rays.

11. ...ERI M.

12. ADVT . . . . FII, in hollow centre of bowl found in block VI, 2.

13. MATERNI in curve, inverted, on margin of fragment of (probably) a hemispherical bowl, found in block I, 6.

14. PATTO . . VS.

15. MATERNMA, on a small, quite plain bowl, at the S.E. angle.

(c) 'Samian' found in the valley south of the Camp.

16. PATE . . on bossed centre.
17. VERECVNDI, good lettering.
18. . . . . CVS F.

Of the pottery found in these excavations, only a small proportion was in good condition ; a fact which may be explained by the shallowness of the soil over a great part of the site, and by the amount of disturbance which it has suffered.

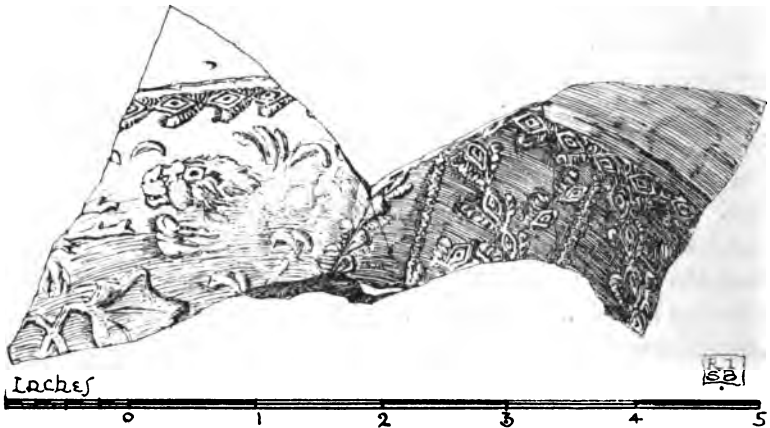


FIG. 51.—'SAMIAN' FRAGMENT WITH LOZENGE-BANDS.

'Samian' Ware or *Terra sigillata*.—This was found most abundantly, and in best condition, in trial-trenches cut across mossy ground near the well, in the valley south of the camp. Of 110 fragments found here in one morning, about 30, or 27 per cent., were figured, while of a total of 365 fragments collected in the camp during three months only 63, or 17 per cent., were figured. In some parts of the camp the percentage was very low ; thus of 100 pieces from the neighbourhood of the cistern in the S.E. angle, all except 9 were plain.

From the ground near the well came the fragment of a hemispherical bowl shown in fig. 51, remarkable because in place of the usual 'egg-and-dart' band there is a band of lozenges ; bands of lozenges are also introduced into the panels below, on one of which is

a lion charging to the left. This lozenge frieze is so unusual that it may some day furnish an indication of date. Here too was found part of a cylindrical cup of the shape which has sometimes been supposed to be characteristic of the first century.<sup>48</sup> There can be no doubt that these cylinder-cups were in use during the second century ;

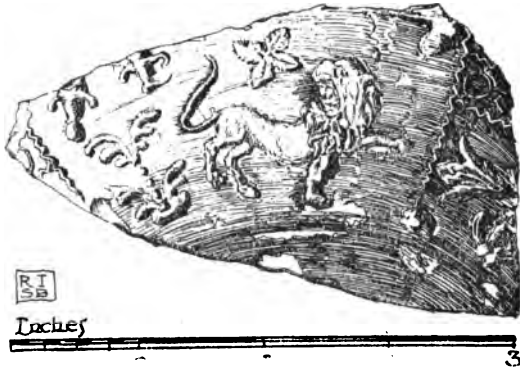


FIG. 52.—FRAGMENT OF HEMISPHERICAL BOWL.

in a section cut through a Roman rubbish-heap in Alderney, by baron A. von Hugel, a very cautious observer, a bronze coin of Commodus was found lying between two pieces of 'Samian,' one a piece of a cylindrical cup, the other of a normal hemispherical bowl with a band of egg-and-dart below the margin. Fragments of the latter type were fairly plentiful, both in the valley and in the camp ; fig. 52 shows a characteristic piece of the ornamentation of such a bowl.

Fig. 53 shows the potter's stamp ...*ucinus* or ...*uginus f[ecit]* on the vase-bottom already mentioned (p. 293) as having been found in the clay puddling at the foundations of the tower on the south wall. It should, probably, as Mr. Blair suggests, be completed *Lucinus*.

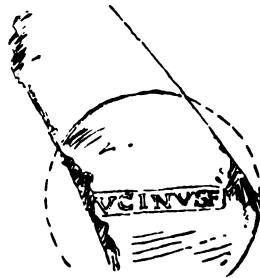


FIG. 53.—POTTER'S STAMP, PROBABLY CONTEMPORARY WITH CAMP-WALL.

The Samian vases (fig. 54) 1-3 were found in fragments in the square sunk hearth of the second room in block v. No. 1 is a somewhat uncommon shape. No. 4 is of Caistor ware with chocolate surface, yellowish white in the break, with a spiral ornament of barbotine work. It was found beside the cistern in the S.E. angle.

<sup>48</sup> See Mr. Haverfield's remarks in *C. and W. Transactions*, xv, 194, and (*New Series*) III (1903), 348, on Dragendorff's dating of this form.

No. 5 (fig. 55), dull grey-black 'late Celtic' ware. Found in the conduit adjoining N.E. tower. Drawn from fragments.

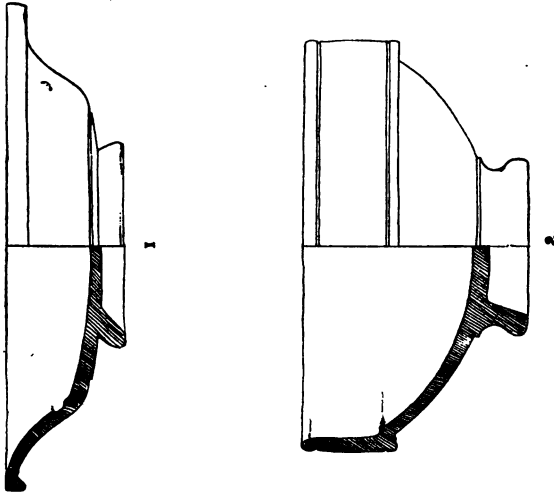
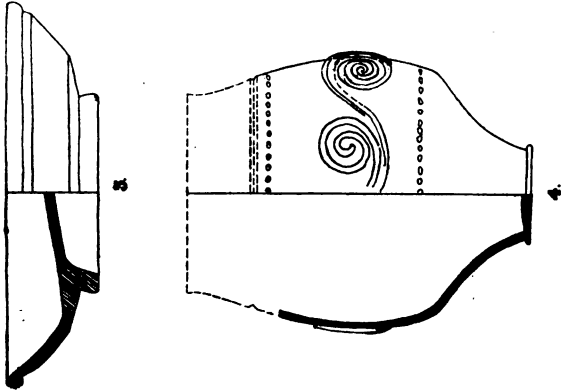


FIG. 54.—1-3. 'SAMIAN' WARE. 4. 'CAISTOR' WARE. *Scalr 114.*

No. 6, pale-grey ware, white in the break. Found in the rubbish by the hearth on the east side of the inner court of the praetorium.

No. 7, bluish-grey ware, made of micaceous clay, white in the break. Found upright in the clay-floor of a barrack-room (block I, 1).

No. 8 (scale 1 : 8), large bowl of grey ware, white in the break. From a barrack-room in block II, upper floor-level. A somewhat similar vessel, found between Benwell and Rutchester, and dated to the end of the third century by the fact that it contained a hoard of 6,000 coins ending with Aurelian, is figured in *Arch. Ael.*, VIII, 256.

No. 9, large deep platter of grey-black ware. Found near the cistern in S.E. angle.

No. 10, large shallow platter of brown ware. Found outside the late building which blocks the south gate.

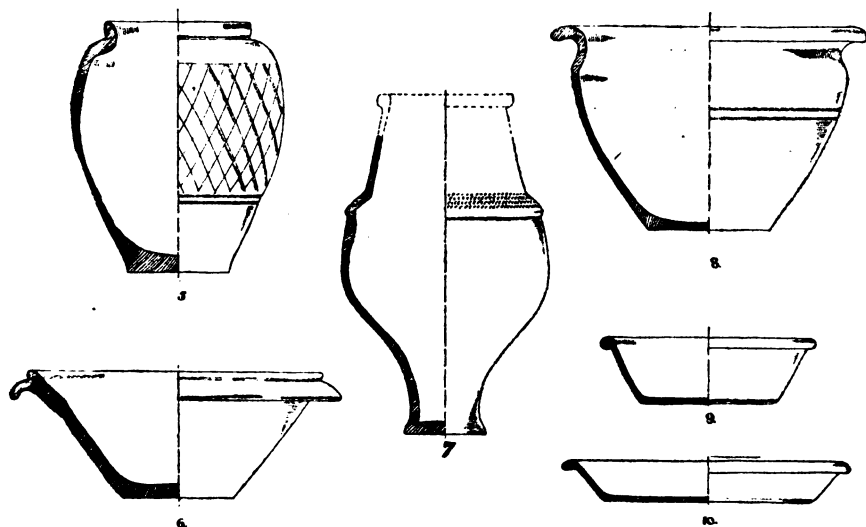


FIG. 55—VARIOUS WARES. SCALE FOR 5, 6, AND 7, 1:4. FOR 8, 9, AND 10, 1:8.

*Coins.*—I am much indebted to Mr. Blair for help in drawing up the following list :—

	Silver.	Copper.	
Vespasian (Cohen, 123) ...	1	—	Trench north of Mithraeum, near well.
Nerva (Cohen, 20) ...	1	—	Praetorium, room 12.
Trajan ...	1	4	
Hadrian ...	1	—	Block I.
„ (Cohen, 717) ...	1	—	Block VI., in surface-earth thrown back by previous excavators from the inner face of the rampart.
„ ...	—	1	



	Silver.	Copper.	
Antoninus Pius ... ..	—	1	
Faustina I. ... ..	—	1	
Faustina II. (Cohen, 71) ...	1	—	Mithraeum.
„ (Cohen, 283) ... ..	—	1	Block III.
Commodus (Cohen, 1001) ...	1	—	Praetorium, room 2, at higher floor-level.
Elagabalus (Cohen, 276 or 277)	1	—	Praetorium, room 10, under latest floor.
Julia Mamaea (Cohen, 55)	1	—	Block XV.
„ „ (Cohen, 81)	1	—	Trench north of Mithraeum, near well.
„ „	(1 base)		Block XVI.
Gallienus ... ..	—	4	
Tetricus (and imitations) ...	—	12	Chiefly in the barracks.
Victorinus ... ..	—	1	
<i>Minimi</i> ... ..	—	6	
Claudius Gothicus ... ..	—	2	
Probus ... ..	—	1	Block I, 2, at higher floor-level.
Diocletian ... ..	—	1	Block XIII.
„ ... ..	—	1	Block XVI.
Carausius ... ..	—	2	
Theodora ... ..	—	1	
Allectus ... ..	—	1	Block I. 1.
Licinius I. ... ..	—	—	Between blocks XIV. and XV.
Constantine I. ... ..	—	5	One in Praetorium, room 11.
Constantius II. ... ..	—	1	Block V. 2.
„ ... ..	—	1	Block XIV.
Constantine II. ... ..	—	2	
Constans ... ..	—	4	One in drain W. of Praetorium, one in block XV.
Decentius ... ..	—	1	In drain S. of block IX.
<i>Urbs Roma</i> ... ..	—	2	
<i>Constantinopolis</i> ... ..	—	4	
Constantine family ... ..	—	9	
Valeus or Valentinian ... ..	—	1	
Valentinian ... ..	—	3	
<i>Illegible</i> ... ..	—	44	
	11	118	Total 129.

The most remarkable feature about this list is the absence of coins of Severus and his immediate successors.

## REPORT ON BONES FOUND AT HOUSESTEADS.

BY MR. A. MEEK, M.SC.,

Lecturer in Zoology at the Durham College of Science, Newcastle-upon-Tyne.

The following is a list of the skeletal remains submitted to me :—

Package I.—Scapula of pony ; ribs of *bos taurus* (var. ?) ; tibia of sheep or other similar-sized ruminant ; tibia of dog (?)

Package II.—Tines of red deer ; lower articular epiphysis of left fore cannon bone of ox ; last right molar tooth of ox ; left first pre-molar of ox ; lower end of tibia of red deer ; left pre-molars of pig ; 5 incisor teeth of ox ; canine and molar teeth of pig ; canine and pre-molar of dog ; 7 teeth of very old cow ; 8 molar teeth of pig ; canine tooth of dog.

Bone (3).—Tines of red deer ; humerus and tarso-metatarsus of bird ; molar of sheep or other small ruminant ; rib of ruminant ; lower end of radius of ox ; tibia of ox ; metatarsus of red deer ; cannon bone of sheep (?) ; astragalus of cow ; ribs of ox ; ribs of sheep right fore pastern (proximal phalanx) bone of ox ; neural spine of thoracic vertebra of ox ; sternum (part of) of ox ; tibia of dog ; radius of small ruminant (sheep ?) ; chip of long bone (radius ?) of ox ; lower end of tibia of sheep or other small ruminant ; last and second last lower right molars of pony ; part of radius of ox ; remnants, likely belonging to sheep ; metacarpal bone of dog ; molar of ox.

The package of large remains contained :—(1) scapula of red deer ; (2) 6 parts of antlers of red deer ; (3) 2 horn cores of *bos taurus*, small variety ; (4) 1 horn core of *bos taurus*, large variety ; (5) part of frontal of *bos taurus* (var. ?) ; (6) left cannon bone of calf of the small variety of *bos taurus*.

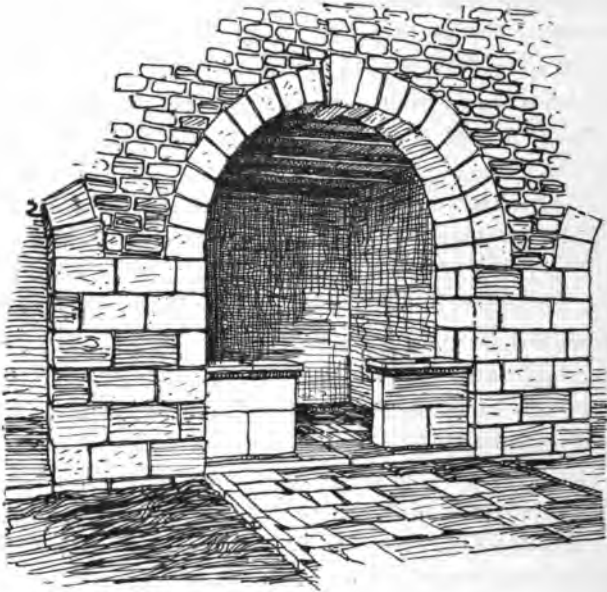


FIG. 17.—*SACELLUM* RESTORED (see p. 227).

**ADDITION AND CORRECTION.**

The walls on plate XIX are indicated in the same way as on plate XV, where a key is given.

Solid black	denotes	early work.
Hatching	„	later work.
Cross-hatching	„	traces of foundations.
Dotted lines	„	inferred line of wall.

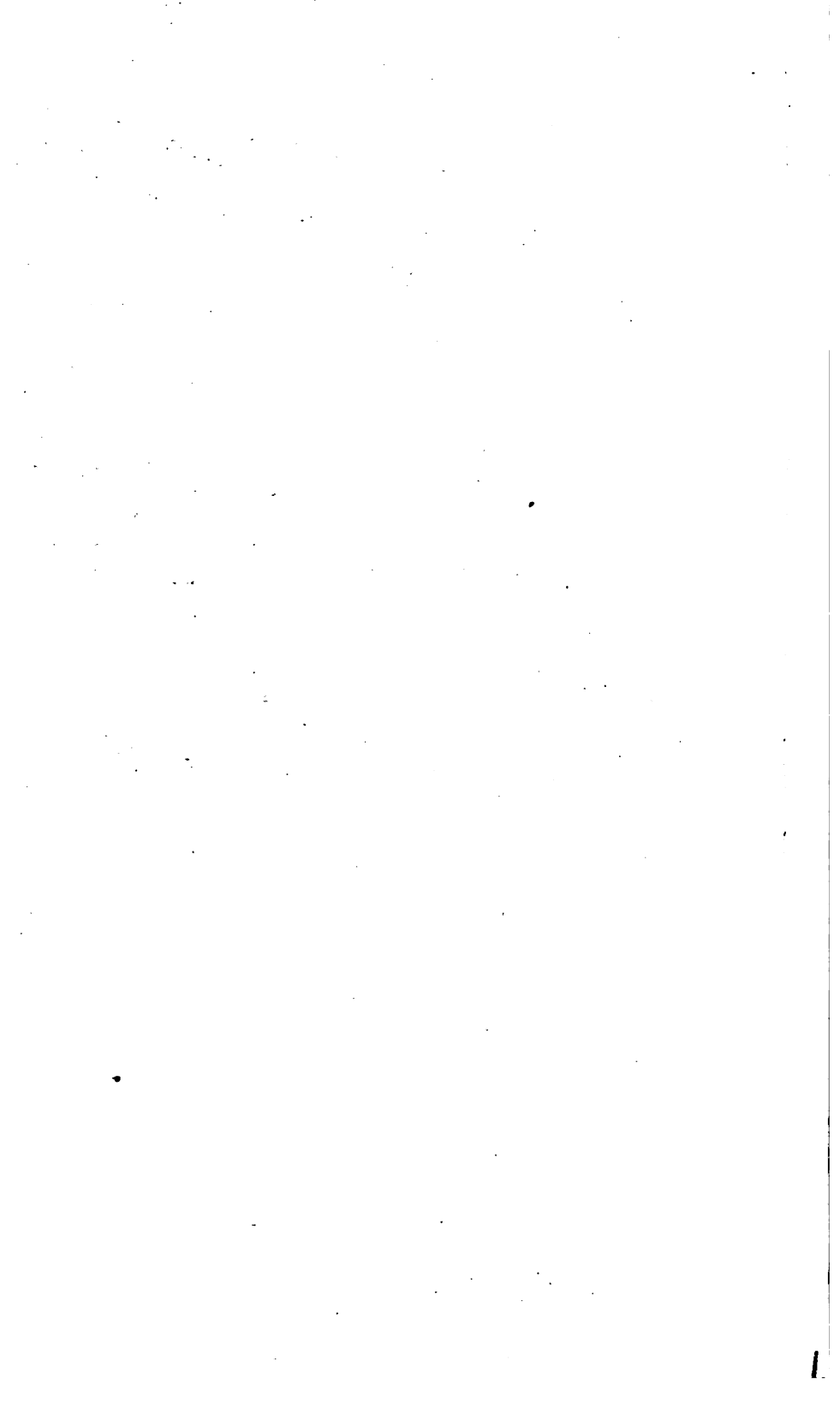
On page 196, for Anonymous read *Anonymous*.



Plate XIX.

GREAT

HILL



RECEIPTS.		EXPENDITURE.	
1892	£ s. d.	1899	£ s. d.
to Dec. 31st,	To Subscriptions received ...	Sept. 30th.	By Expenditure to date ...
1903.	" Balance due to Treasurer		
	838 0 3		892 3 8
	54 3 5		
	<u>£892 3 8</u>		<u>£892 3 8</u>
		By Balance ...	£54 3 5

THE TREASURER OF THE ROMAN WALL EXCAVATION FUND. STATEMENT No. 2.  
ANALYSIS OF RECEIPTS AND EXPENDITURE.

DR. CR.

RECEIPTS.		EXPENDITURE.	
1892	£ s. d.	By Expenditure at Down Hill	£ s. d.
1893	To Balance in hand as per Bank Pass-book	Asstca	28 15 6
1894	" Subscriptions as per List	Housesteads	427 4 8
1895	" " " " " "		435 3 6
1896	" " " " " "		<u>£892 3 8</u>
1897	" " " " " "		
1898	" " " " " "		
	429 4 3		
	<u>841 15 3</u>		
	3 15 0		
	<u>838 0 3</u>		
Deduct amount repaid Soc. of Antiquaries		Accounted for thus:—	
		Down Hill.	
Balance being excess of expenditure over receipts ...	54 3 5	£ s. d.	£ s. d.
		Excavations	21 0 0
		Compensation	5 5 0
		Mr. Bosanquet	—
		Surveys	14 13 6
		Printing	1 17 0
		Committee	0 13 6
		Johnson	—
		Bank Charges	—
		and Interest	3 3 8
	<u>£892 3 8</u>		<u>£28 15 6</u>
		Asstca.	305 1 2
		Housesteads.	698 13 8
			35 0 0
			69 15 0
			52 10 0
			25 2 0
			39 15 6
			8 4 6
			3 3 6
			5 15 2
			14 6 4
			<u>£892 3 8</u>



LIST OF SUBSCRIBERS TO THE ROMAN WALL EXCAVATION FUND.

	1893.			1894.			1895.			1896.			1897.			1898.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Armstrong, Lord (the late) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Archer, Mark ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armstrong, Lord (the present)	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0
Adamsou, W. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Adamson, L. W. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Adamson, Rev. Cuthbert E. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brooks, the late J. C. ...	...	...	...	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0
Booker, R. P. L. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bruce, Sir George ...	...	...	...	...	...	...	5	5	0	5	5	0	5	5	0	5	5	0
Burman, C. C. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Browne, the late A. H. ...	...	...	...	...	...	...	5	0	0	5	0	0	5	0	0	5	0	0
Bates, the late Cadwallader J.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bell, W. Heward ...	...	...	...	...	...	...	1	1	0	1	1	0	1	1	0	1	1	0
Bosanquet, C. B. P. ...	...	...	...	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0
Branford, C. ...	...	...	...	...	...	...	...	...	...	4	4	0	4	4	0	4	4	0
Cambridge University Committee	...	...	...	...	...	...	...	...	...	1	0	0	1	0	0	1	0	0
Clephan, R. C. ...	1	1	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Craster, Ed. C. ...	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0
Clark, Prof. E. C. ...	...	...	...	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
Crossman, the late Major-Gen. Sir Wm.	...	...	...	2	2	0	10	0	0	10	0	0	10	0	0	10	0	0
Calvert, the late Rev. T. ...	...	...	...	...	...	...	...	...	...	1	0	0	1	0	0	1	0	0
Crucidas, W. D. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carr-Ellison, J. R. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carried forward	2	2	0	8	7	0	27	9	0	32	6	0	14	2	0	161	1	6

	1883.		1884.		1885.		1886.		1887.		1888.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Amounts brought forward .. .. .	2	2 0	8	7 0	27	9 0	32	6 0	14	2 0	161	1 6
Dendy, F. W. ....	...	...	1	1 0	1	1 0	...	...	1	1 0	1	1 0
Deacon, the late T. J. F. ....	...	...	1	1 0	1	1 0	1	1 0	...	...	...	...
Evans, Sir John .. .. .	...	...	2	2 0	2	0 0	...	...	...	...	...	...
Embleton, the late Dr. Denis .. .. .	...	...	...	...	1	0 0	...	...	...	...	...	...
Featherstonhaugh, the late Rev. W. ....	...	...	...	...	...	...	...	...	...	...	0	10 0
Fletcher, H. M. ....	...	...	...	...	...	...	...	...	...	...	2	0 0
Fisher, Edward .. .. .	1	1 0	1	1 0	1	1 0	...	...	...	...	...	...
Franks, the late Sir A. W. ....	...	...	5	0 0	...	...	...	...	1	1 0	...	...
Forster, R. H. ....	...	...	...	...	...	...	...	...	...	...	1	0 0
Fry, Lady .. .. .	...	...	...	...	...	...	...	...	...	...	...	...
Glendenning, the late W. ....	...	...	...	...	...	...	...	...	...	...	1	0 0
Green, the late R. Y. ....	...	...	1	1 0	1	0 0	...	...	...	...	1	1 0
Gibson, J. P. ....	...	...	1	1 0	1	1 0	1	1 0	...	...	...	...
Gibson, T. G. ....	...	...	5	0 0	...	...	...	...	...	...	2	2 0
Gaynes, Mr. ....	...	...	...	...	0	10 0	...	...	...	...	...	...
Gibson, Margaret .. .. .	...	...	...	...	...	...	0	10 0	...	...	...	...
Gregory, J. V. ....	...	...	...	...	...	...	...	...	...	...	1	1 0
Harrison, the late J. A. ....	0	5 0	...	...	...	...	...	...	...	...	...	...
Hodgkin, Dr. Thos. ....	...	...	22	2 0	10	0 0	10	0 0	10	0 0	50	0 0
Haverfield, F. J. ....	...	...	3	13 6	...	...	...	...	5	0 0	5	0 0
Hunter, T. ....	...	...	...	...	0	5 0	...	...	...	...	...	...
Haggie, R. Hood .. .. .	...	...	...	...	1	0 0	...	...	...	...	...	...
Carried forward .. .. .	3	8 0	51	9 6	47	8 0	44	18 0	31	4 0	224	16 6

LIST OF SUBSCRIBERS TO THE ROMAN WALL EXCAVATION FUND (Continued).

	1883.	18 94.	1885.	1886.	1887.	1888.
Amounts brought forward ... ..	£ 3 8 0	51 9 6	47 8 0	44 18 0	31 4 0	224 16 6
Holmes, the late Sheriton .. ..	...	1 1 0	1 1 0	0 10 0	...	...
Holmes, T. Vincent .. ..	...	...	...	...	10 0 0	...
Henderson, W. F. .. ..	...	...	...	...	...	1 0 0
Horn, Miss .. ..	...	...	...	...	...	1 0 0
Hodgkin, T. E. .. ..	...	...	...	...	...	...
Knowles, W. H. ... ..	...	1 1 0	1 1 0	2 2 0	1 1 0	1 1 0
Kitchin, the Very Rev. Dean .. ..	...	...	...	...	...	...
Leather, S. F. T. .. ..	...	1 1 0	1 1 0	1 1 0	...	...
Moore, J. M. .. ..	...	1 1 0	1 1 0	...	2 2 0	1 1 0
Mitchell, the late C. W. .. ..	...	10 0 0	5 0 0	...	...	25 0 0
Miall, L. C. .. ..	...	...	...	...	1 1 0	...
Northumberland, Duke of (the late) ... ..	...	20 0 0	10 0 0	...	...	...
Northumberland, the Duke of (the present)	...	10 0 0	10 0 0	10 0 0	...	50 0 0
Oxford Committee .. ..	...	25 0 0	...	...	...	3 3 0
Pitt-Rivers, the late General .. ..	...	...	...	...	...	5 0 0
Pease, Mrs. .. ..	...	...	5 0 0	...	5 0 0	5 0 0
Pease, Miss .. ..	...	...	...	...	...	1 1 0
Philipson, the late John .. ..	...	...	0 10 0	...	...	...
Price, F. G. Hilton .. ..	...	...	...	5 0 0	...	...
Pybus, Mr. .. ..	...	...	...	...	...	2 2 0
Carried forward .. ..	3 8 0	120 13 6	82 2 0	63 11 0	50 8 0	320 4 6

	1893.		1894.		1895.		1896.		1897.		1898.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Amounts brought forward ...	...	...	...	...	...	...	...	...	...	...	...	...
Peckover, A. ...	3	8 0	120	13 6	82	2 0	63	11 0	50	8 0	320	4 6
Phillips, Maberly ...	...	...	...	...	...	...	...	...	...	...	20	0 0
Phillips, Maberly ...	...	...	...	...	...	...	...	...	...	...	1	1 0
Ravensthorpe, The second Earl ...	...	...	5	0 0	...	...	...	...	...	...	...	...
Rich, F. W. ...	...	...	2	2 0	2	2 0	...	...	...	...	2	2 0
Robinson, R. ...	...	...	...	...	...	...	...	...	...	...	...	...
Spence, C. J. ...	...	...	5	5 0	...	...	10	0 0	10	0 0	25	0 0
Savage, Rev. H. E. ...	...	...	1	1 0	...	...	...	...	...	...	...	...
Society of Antiquaries, Newcastle ...	...	...	...	...	...	...	20	0 0	...	...	29	13 9
Society of Antiquaries, London ...	...	...	...	...	...	...	...	...	...	...	20	0 0
Smith, A. I., Oxford ...	...	...	...	...	...	...	...	...	...	...	1	0 0
Taylor, H. ...	...	...	5	0 0	...	...	...	...	...	...	...	...
Thompson, G. H. ...	...	...	...	...	...	...	...	...	1	0 0	...	...
Windle, Rev. H. L. ...	...	...	...	...	...	...	...	...	...	...	1	1 0
Williamson, T. ...	...	...	...	...	...	...	...	...	...	...	1	1 0
Welford, R. ...	...	...	...	...	1	1 0	2	2 0	2	2 0	5	0 0
Ware, Mrs. ...	5	5 0	1	0 0	...	...	...	...	...	...	2	0 0
Wilkinson, Rev. Bishop ...	...	...	...	...	...	...	...	...	...	...	...	...
Willyams, H. J. ...	...	...	...	...	...	...	...	...	...	...	1	1 0
Anonymous ...	...	...	...	...	0	5 0	...	...	...	...	...	...
Totals ...	8	13 0	140	1 6	85	10 0	95	13 0	63	10 0	429	4 3

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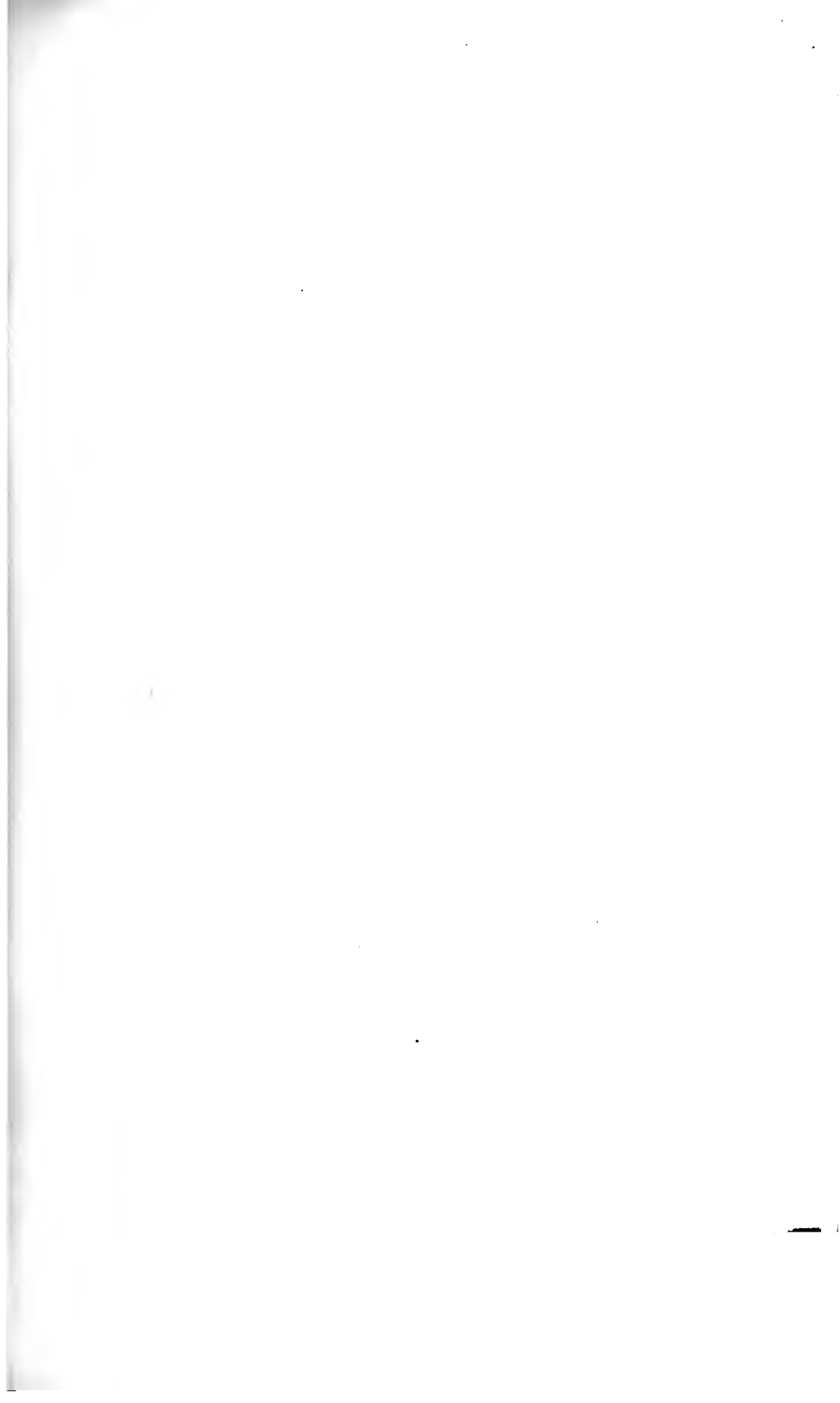
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